Lectures
ON
TUMOURS OF THE BREAST.

Delivered at the Royal College of Surgeons of England on June 4th, 1894,

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—My first duty is to thank the Council of the College for the great privilege of delivering these lectures. An apology seems almost required from a lecturer who ventures to bring forward for consideration a subject which possesses such a voluminous literature as that of diseases of the breast, and more especially when he proposes to deal with the tumours of that gland. Unfortunately, our real knowledge of any particular subject in medicine and surgery often has no direct relation to the amount that has been written upon it; and my object will have been attained if I am able in any way to reconcile conflicting opinions or throw one additional ray of useful knowledge upon a most important group of diseases. My work was originally undertaken at the suggestion of one whom I shall always remember with the deepest respect—Marcus Beck; and I cannot allow this opportunity to pass without expressing the very great debt of gratitude which I owe to him for his teaching and influence. For him the study of pathology had always the greatest charm, and in connexion with the diseases of the breast Mr. Beck did much to bring together the clinical and pathological aspects of the different conditions. I also gladly take this opportunity of expressing my thanks to the surgical staff of University College Hospital for their kindness in placing their cases and material at my disposal, and I am much indebted to my friend, Mr. Edward Worrall, for the preparation of the series of photographs with which these lectures are illustrated.

All who have studied the morbid conditions of the mammary gland must have been struck by the extreme difficulty which is often met with in making an accurate diagnosis, based solely upon the clinical characters of the disease. This seems the more remarkable when we consider how the organ, from its anatomical relations, lends itself to thorough examination. Viewed from the standpoint of the pathologist the difficulty is still greater. Different observers give quite opposite explanations of the development of one and the same morbid condition, and accordingly name it differently, and often express very conflicting opinions as to the probable future of the case. In no department, indeed, of surgical pathology is the nomenclature in a more unsatisfactory state than in that concerned with tumours of the breast. So much, in fact, is this the case that the reader of works on the subject finds himself often in a state of hopeless confusion. A score of names are applied to the same disease, and not rarely the condition which one writer designates by a certain name is quite different from that for which another writer uses the same.

A satisfactory system of nomenclature must be founded upon a sure pathological basis. Each name must as far as possible be applied to a tumour which possesses definite structural and clinical features, and the error, which is unfortunately a common one, must be avoided of applying separate names to conditions which differ only in unimportant details and not in any essential character. In many instances it fortunately happens that the clinical and pathological characters of a tumour are both sufficiently definite, but not rarely the difficulty of nomenclature and classification is great. In no part of the body is it more frequent than in the breast to find that two tumours, which clinically appear to be identical, prove to be essentially different in their anatomical structure. Thus, it arises that a classification based upon morbid anatomy is much more complex than that founded solely upon features which can be recognised clinically. This discrepancy must, it is hoped, become gradually less as the number of cases increases in which both features of the disease are recorded with equal thoroughness.

I now pass to the consideration of certain factors which seem to be of practical importance in determining the difficulty of the subject of tumours of the breast. In the first place it is well known that the glandular epithelium of the acini presents widely different microscopic appearances at different ages and in the various states of rest and activity. These differences are, indeed, so marked that caution is very necessary in deciding that a given microscopic appearance in the breast is really pathological simply from changes in the character of the epithelium. In the next place chronic inflammatory changes are extremely common in the mammary gland, and frequently induce secondary modifications of the glandular elements, whilst their resemblance to certain tumour formations is very close. Moreover, the microscope often fails to make a ready distinction, so that the observer may often be at a loss to decide whether the fibrous tissue of the specimen is the stroma of a tumour or merely the product of a chronic inflammation; whilst the glandular elements in the preparation may be of new formation, or they may be an integral part of the original gland tissue variously altered by inflammatory changes around them. In this connexion I would venture to insist upon the necessity of restricting the use of the word "tumour" to those conditions of the breast in which an actual new formation is present, and not applying it to those conditions in which no such new formation exists, but in which we have to deal with various modifications of the pre-existing gland tissue. In the consideration of this last point may I remark that, to my mind, we are at times apt to allow the evidence afforded by the microscope to outweigh that most valuable information which is obtained by a careful naked-eye examination? One question, indeed, which is frequently of primary importance can often be best answered by a naked-eye examination alone—What is the relation of the tumour to the part in which it lies? On the answer to this question often mainly depends our decision as to the simple or malignant nature of a growth under examination. For example, certain simple papillomatous growths occupying the lumen of one of the large ducts have very close affinities to the columnar-celled carcinoma, the so-called duct cancer. The microscopic examination of an isolated section of the growth is a very imperfect means of distinguishing the two tumours. As in the parallel case of the papilloma and carcinoma of the rectum we must answer the questions: What is the relation of the tumour to the wall of the duct? Is it pedunculated and entirely contained within the lumen, or has it already invaded the tissues outside the wall of the duct? The pathologist who is asked to report upon the nature of a tumour simply from the examination of a microscopic section is badly handicapped in being without the evidence afforded by the naked-eye appearances of the disease in its recent state. He may not only be unable to speak with any certainty as to its simple or malignant nature, but may be at a loss to decide whether he is dealing with an actual tumour at all.

Lastly, it must be allowed that the very frequent occurrence of cystic formations in various diseases of the breast is often one element of difficulty in the way of diagnosis and has helped to account for the prodigious array of names of which diseases of this organ can boast. Leaving out of consideration those cysts which, according to some pathologists, arise independently of the glandular tissue, we may conveniently group them under three headings: (1) cysts resulting from the distension of the proper glandular structure of the organ; (2) cysts forming an essential part of the structure of tumours, simple or malignant; and (3) cysts occurring in tumours as the result of certain more or less accidental conditions—e.g., hæmorrhage and degenerative softening. Cysts of the last variety form no essential part of the structure of the growth their nature can usually be easily recognised by an examination of other parts of the tumour, which will as a rule show their mode of formation, and by the absence of any epithelial lining in their walls. Those of the first two varieties may accurately resemble each other in their minute structure, but differ essentially in this particular, that the first are not associated with actual tumour formation, whilst the second result from distension of glandular elements which exist in a definite tumour. Cystic disease of the breast itself and cystic changes in a tumour of the breast must be kept clearly separated from each other.

In the formation of the tumours of the breast we have to consider the part played by the glandular elements and the connective tissue respectively. The former can in this respect

be conveniently divided into the smaller ducts with the acini and the large ducts. As constituents of a tumour, the smaller ducts and acini are often indistinguishable, whereas the larger ducts have a pathology of their own. A simple tumour of the breast depends for its clinical features upon the presence of a definite fibrous capsule, within which the growth of the tumour proceeds. It is, indeed, characterised by the absence of infiltration, and thus possesses no malignancy, either local or general.

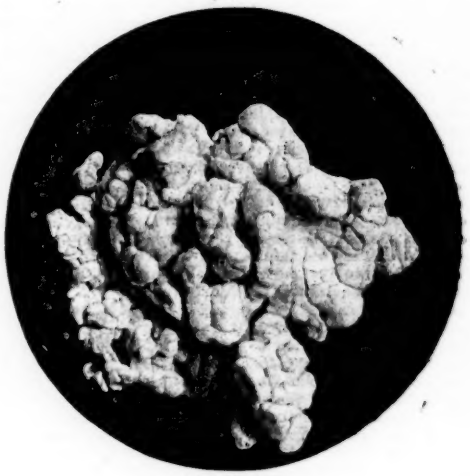
The simple encapsuled tumours may be conveniently divided into two classes: (1) those composed solely of some form of connective tissue, and (2) those which contain glandular tissue. The simple connective tissue growths simply occur in the breast by virtue of the presence of an abundant connective tissue in its structure. Such growths are the fibroma, myxoma, lipoma, &c. They are very rare. No glandular tissue enters into their composition and, both clinically and structurally, they correspond with similar tumours occurring elsewhere. A few remarks are required concerning *fibroma* of the mamma. This name should be restricted to an encapsuled tumour composed only of fibrous tissue and without any admixture of glandular elements. The London museums contain very few examples of pure fibroma. A remarkable specimen is preserved, partly in the museum of this College and partly at St. Bartholomew's Hospital. It weighed seven pounds and was removed, after thirteen years' growth, from a woman between thirty and forty years of age. The patient was in the habit of sitting with the tumour resting upon her knees until the integument over it sloughed. "The mammary gland lay under the tumour, and appeared healthy." A good example of soft fibroma was brought before the Pathological Society by Mr. C. F. Beadles in 1892. The tumour was removed from a man thirty-four years of age. It lay on the posterior surface of the left breast a little outside the nipple. It was round in form, distinctly limited, and on section presented a hard whitish surface. The microscope revealed a fibrous structure, and "no trace of gland acini was present throughout the whole tumour."

Much confusion has arisen from the use of the term "fibroma" for two other conditions essentially different from the tumour as above defined. I refer to the fibro-adenomata on the one hand, and certain fibrous overgrowths in the breast tissue on the other. The name "diffuse fibroma" has even been given to the condition of hypertrophy of the whole mamma. A case quoted by Labbé and Coyne as an example of diffuse fibroma seems to have been really a chronic mastitis. The breast was excised in a woman forty years of age, who had been confined fourteen weeks previously. There was found to be a considerable hyperplasia of connective tissue throughout the gland, and at one spot a small abscess. The museum of the Charing-cross Hospital contains a specimen of so-called fibrous tumour, removed from a seaman aged eighteen, who first noticed a swelling of the breast after a blow by a falling spar on board ship. The specimen consists of the whole, or at least the greater part, of the gland, and the microscope shows that the condition is the result of chronic inflammation. Such conditions as these have, to my mind, no greater right to the name "fibroma" than has the condition of cirrhosis of the liver to be called "diffuse fibroma of the liver."

The large ducts of the breast are not uncommonly the seat of solid growths, which occupy and gradually distend the lumen. A solid tumour of considerable size may thus be produced, occupying a cyst formed by the distended duct, which may on the proximal side of the cyst remain patent to the nipple. In their structure these growths may be fibrous, glandular, papillomatous or sarcomatous. Clinically their exact nature is usually doubtful, but this much may be said, that a perfectly circumscribed tumour in the substance of the breast near the nipple is probably of this class; whilst the presence of a discharge, clear or blood-stained, from the nipple is often a valuable point in the diagnosis. These duct tumours tend to assume a polypoid form and their surface may be covered by an epithelium continuous with that of the duct in which they arise. Fig. 1 represents a large duct fibroma which is preserved in the museum of University College. It was removed from an unmarried woman aged twenty-four. The tumour was of very slow growth and was embedded in the substance of the centre of the breast; its lobulated outline was recognised before removal. We may thus conclude that Fibroma of the breast is rare, and that it occurs in two forms—first, as an encapsuled tumour attached to the surface or periphery of the gland; and, secondly, as a polypoid growth into one of the large collecting ducts.

Leaving now those simple tumours of the breast which consist entirely of connective tissue, we pass to the consideration of the second group—those which contain glandular elements in their structure. The typical glandular tumour of the breast is the Pure Adenoma, a growth admitted by all writers on the subject to be rare, and composed of glandular tissue closely resembling that of the normal breast. The tumour is encapsuled and loosely connected with the breast itself, which only suffers mechanically should the growth reach a large size. There is a specimen which appears to be of this nature in the museum of University College. It was removed by Mr. Quain in 1857 from a woman aged twenty-six. The tumour weighed four pounds and did not implicate the mammary gland. It is encapsuled and the section has a close resemblance to that of a pancreas. The tumour is composed of groups of acini, lined with an abundant epithelium, in some places nearly filling them. "Small ducts are seen here and there communicating with the acini, but no large ducts are to be found receiving the smaller ones. The interacinous tissue is very abundant and composed of fully developed fibrous tissue. There is no fat mixed with the fibrous tissue anywhere." A good example of true adenoma is preserved in the museum of St. Bartholomew's Hospital, and is described in the thirty-sixth volume of the Transactions of the Pathological Society. In the fresh state it looked like a normal mammary gland, and was removed from a woman who was four months pregnant. Mr. Bryant, in his work on

FIG. 1.



Duct fibroma.

"Diseases of the Breast," refers to two remarkable cases published by Birkett, in which large ducts containing milk were found in a true adenoma. These examples sufficiently indicate the nature of the tumour which alone deserves the name of "adenoma." It is wrongly applied to varying conditions of glandular hypertrophy affecting the breast tissue itself and forming an integral part of the gland. The use of the name "adenoma" under these circumstances is misleading, and cannot be productive of anything but confusion. This tendency to extend the use of the word "adenoma" is by no means confined to the diseases of the breast, for we find the term "sebaceous adenoma" applied to the hypertrophied condition of the skin of the nose which rejoices in the other misnomer, "lipoma nasi," whilst the so-called "adenoma of the cervix uteri" is merely a chronic inflammatory condition with hyperplasia of the glands, and is more correctly called "cervical endometritis." No better example can be given of the endeavour which some writers seem to make to complicate the nomenclature of diseases of the breast than the suggestion to call an adenoma a "typical non-carcinomatous or circumscribed epithelioma." Can anything justify the use of the term "non-carcinomatous epithelioma"? It is an evil to introduce new names unless such be absolutely necessary, but surely it is a much greater evil to apply a name, which custom has decided shall mean one thing, to a condition which is absolutely different.

I now pass to the consideration of the commonest of all the simple tumours of the mamma, which I will speak of

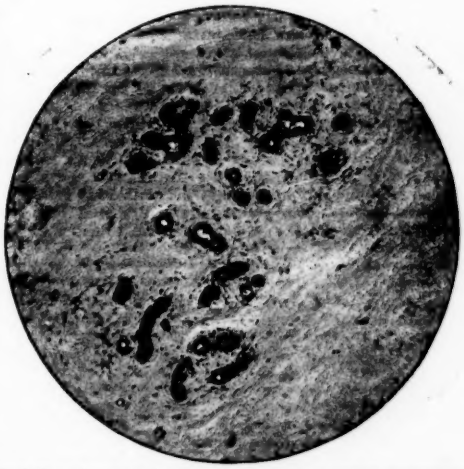
provisionally by the well-known name "chronic mammary tumour." All are agreed as to the clinical features of this tumour. It occurs most commonly before the age of thirty, it is more or less lobulated and definitely encapsuled, moves independently of the breast itself, and contracts no adhesions to the nipple, skin or deep structures. The tumour lies most commonly at the periphery of the breast or upon one of its surfaces; much less frequently it is embedded in the substance of the gland. The operation for the removal of such a tumour is extremely simple; it can be easily shelled out after the free incision of the capsule in which it lies. In the majority of cases no part of the breast tissue is divided, but the capsule of the tumour is exposed immediately beneath the subcutaneous fat. When the tumour lies thus superficially it is usually found to be slightly attached by its deep surface to the breast, and often a thin strand of tissue requires division at this point. The process of enucleation is thus not altogether comparable to that of a fatty tumour, which can often be squeezed from its capsule without further use of the knife when the capsule itself has been freely opened. In a much smaller proportion of cases the tumour is not exposed until a certain thickness of breast tissue has been divided, but in these cases the encapsulation of the growth is still perfect, and, further, the intimate connexion between the tumour and the breast at one spot is usually obvious. The capsule of the tumour usually presents an appearance suggesting that it is merely formed by condensation of the surrounding connective tissue; at other times the inner surface of the capsule is smooth and glistening. The surface of the tumour is, as a rule, lobulated and its general shape rounded. A section of the tumour presents naked-eye appearances which differ considerably in different specimens. The colour is usually dense white, more rarely with a pinkish tint. In some specimens the section has the appearance of a dense fibroma, being almost homogeneous or presenting a glistening, wavy surface. Not uncommonly small cysts are laid open by the section, or the surface may be intersected by fine branching clefts which give rise to the "split cabbage" appearance described by Virchow. These clefts may at times be so arranged that the tumour appears to be composed of closely packed foliaceous masses which project on the divided surface. In the larger tumours there is often a subdivision of the growth into lobules, which may differ considerably from one another in their naked-eye characters.

The microscope reveals one fact which is constant in all growths of this class—viz, that they contain glandular tissue and connective tissue in varying proportions. Little need be said concerning the fibrous groundwork, which presents every variety between closely packed bundles of white fibres with scanty cellular elements, and a loose connective tissue rich in small round, oval, and spindle cells. The blood-vessels are usually small and few in number. Various modifications of the fibrous stroma may occasionally be met with, such as calcareous deposit and mucous softening. Such changes are of little importance, and their presence in no way affects the nature of the growth. I may refer, however, to the occasional presence of fat in the stroma, of which I have met with two instances. In both cases the tumour presented the usual characters of this class and the fat was present in small quantity. Mr. Bryant has recorded a remarkable case of lipomatous adeno-fibroma. The tumour was as large as a walnut and was removed by Mr. Cooper Foster from a male child ten months of age. It was composed of fat and fibrous tissue and "a number of tubes like breast tubes." I have thought it worth while to refer to this occasional presence of fat in the connective tissue of these tumours because it is very unusual, and, indeed, the presence of fat in a tumour of the breast may usually be taken as evidence that the growth is infiltrating and therefore malignant.

The glandular elements of the growth need our careful consideration, and, on account of the great diversity of the characters presented by different specimens, it will be impossible to refer to more than certain types. It is convenient to start with that variety in which the glandular tissue more or less closely resembles the acini of a normal breast. The acini may be scattered irregularly through the stroma or may be grouped into lobules, the individual acini being connected by small ducts. (Fig. 2.)

The epithelium varies; at one time it consists of a regular single layer of cubical or spheroidal cells set upon a basement membrane; in other specimens the spaces are lined by several layers of small epithelium beneath which no basement membrane can be detected. The presence of a basement membrane has been given as one of the microscopic features of a simple glandular tumour. My own belief is that it is very inconstant and that its absence justifies no conclusions as to the nature of a growth. The absence of large ducts from the chronic mammary tumours is almost constant. An illustration is given (Fig. 2) which illustrates an exception to the rule in that the group of acini, two of which contain some secretion, are connected with a small duct, which is passing to open into a larger one. A common modification of the glandular tissue of the tumour results

FIG. 2



Hard fibro-adenoma; glandular tissue retaining acinous arrangement.

from a more or less general cystic change. The cysts may be microscopic or may reach a considerable size, partly increasing by the coalescence of adjacent spaces. The epithelium may present any of the characters above described. Still more frequently, however, the glandular tissue takes the form of fine cleft-like spaces intersecting the tumour in every direction and producing the characteristic naked-eye appearances already mentioned. These clefts appear in some specimens to represent elongated ducts uniting the

FIG. 3.

Hard fibro-adenoma; glandular tissue in form of narrow clefts.

acini. As a rule, however, it is impossible to say what part is taken by the small ducts and acini respectively in the production of the clefts. The latter may become much compressed and the lining epithelium very small and atrophied; so that, indeed, the glandular elements appear to take a very insignificant part in the structure of the growth. (Fig. 3.) In tumours presenting this variety of

structure the fibrous groundwork is usually very dense, and it seems probable that the condition of the glandular tissue may be the result of this. By a gradual transition we pass from the tumour which is intersected by narrow glandular clefts to that in which the branching of the spaces reaches such a degree that the fibrous groundwork is broken up into closely packed papillary and foliaceous masses, thus repeating on a small scale the appearance which the section of many of these tumours presents to the naked eye. (Fig. 4.) The structure is exactly the same as may arise from the growth of intracystic vegetations into pre-existing spaces. The solid fibrous stroma, which is thus broken up by the intersecting glandular clefts, frequently contains glandular tissue in one or other of the forms already described.

The differences in detail of structure between the varieties of tumour above described are certainly considerable. By the examination of a large number of specimens, as well as of different parts of the same one, we are, however, forced to conclude that one name may be applied to the whole group. The differences in detail of structure are not associated with corresponding clinical differences, although one is bound to admit that the variation is considerable between the tumour rich in glandular acini and that in which the glandular elements are merely represented by scanty epithelium-lined clefts. In our endeavour to find a suitable

FIG. 4.

Hard fibro-adenoma; stroma broken up into foliaceous masses by the branching glandular spaces.

name for the tumour in question we have at disposal, amongst others, the following: chronic mammary tumour (Cooper), pancreatic sarcoma (Abernethy), mammary glandular tumour (Paget), lobular imperfect hypertrophy (Birkett), fibroid glandular tumour (Foerster), adenoma with preponderance of stroma (Broca), adenocele, corps fibreux (Lebert, Cruveilhier), adeno-fibroma (Billroth), fibro-adenoma, and fibroma (Cornil and Ranvier, Labbé and Coyne, Gross). The clinical features of the tumour are characteristic and, as we have seen, the structure is constant, differing only in non-essential details. We require, therefore, a name which is based on the pathological structure. Two chief views are held respecting the true nature of the growth. On the one hand we find those who consider the fibrous ground-substance to be the only essential part of structure, viewing the glandular elements as accidental remains of pre-existing breast tissue, variously modified by the overgrowth of connective tissue around it; according to these the tumour is a fibroma. On the other hand are those who consider the glandular elements to be an essential part of the structure of the tumour, and consequently regard it as a variety of adenoma. I will at once state my agreement with those who hold the latter view, and I would suggest that the most accurate name which can be applied to the tumour is that of "fibro-adenoma," which correctly expresses its nature—an "adenoma with preponderence of stroma."

It seems to me that we have very sufficient evidence for looking upon the glandular portion of the growth as the essential part of its structure, whilst most serious objections can be raised against the view that the growth is a fibroma containing accidental remains of glandular tissue. According to this view the tumour owes its origin to a localised overgrowth of fibrous tissue through a part of the breast, and the glandular tissue of the tumour is that of the breast-lobule thus involved. The principal objections which can be raised to this view of the nature of the fibro-adenoma are as follows:—1. Clinical evidence shows that the tumour in its earliest recognisable stage is still a definite encapsuled growth and not a modified lobule of the breast. On this point the patient's history, as far as this can be trusted, is usually quite clear, for we are told that the tumour when first noticed felt "like a little pea slipping about over the breast." 2. If this view be true, the relative amount of glandular tissue should become insignificant as the tumour increases in size. This is far from being the case, and a tumour several pounds in weight may be throughout rich in glandular tissue, whilst the breast itself, although displaced, appears to be otherwise unchanged. Hence it follows that the glandular elements must increase, *pari passu*, with the growth of the tumour; and, further, the glandular tissue presents appearances which it seems impossible to explain as the mere result of the formation of new fibrous tissue around it. 3. If a fibro-adenoma owes its origin to a fibrous overgrowth in a breast lobule, why are not all the constituents of the lobule represented in the tumour? Frequently acini only are found in the growth, and certainly the larger ducts are almost invariably absent. The remark of Gross applies to the fibro-adenomata as to the true adenomata; "the efforts of nature appear to be confined to the excessive production of glandular apparatus, without attempting to unite the acini into distinct lobules attached to excretory ducts." 4. A fibroma is a simple encapsuled tumour, which shows no tendency to invade the part in which it lies, and, as met with in other situations, no remains of the surrounding tissues enter into its composition. For instance, a fibroma of muscle does not contain muscle fibres scattered through its substance, whilst a fibroma in the subcutaneous tissues is altogether devoid of fat. 5. The common occurrence of these tumours in the breast is difficult to explain on the supposition that they are fibromata, which are by no means common in other situations where fibrous tissue is equally abundant. If, on the other hand, they are glandular growths their frequent occurrence in the breast is readily intelligible. 6. Pure fibromata are, as we have already seen, occasionally, though rarely, met with in the mammary gland. A comparison of the fibroma and fibro-adenoma suggests that they are essentially different.

If the name of a tumour is necessarily to be founded upon the tissue of which it is chiefly composed, many fibro-adenomata undoubtedly merit the name "fibroma." On the same grounds many hard carcinomata should be called "fibromata," for in many of these the relative proportion of the epithelial elements is not greater than in some of the tumours under consideration. Considered from this point of view, I take it that the name of a tumour is much more justly determined by so highly differentiated a structure as glandular tissue than by the mere presence of simple fibrous tissue, however abundant. Delbet in a very able article on Diseases of the Breast in the Surgery of Duplay and Reclus, raises four objections to the connective tissue theory of the chronic mammary tumours: (1) It does not explain the presence of the glandular culs-de-sac, as these tumours do not increase by infiltration; (2) it does not explain the number of the glandular elements; (3) it fails to explain the formation of cysts; and (4) it does not account for the frequency of these tumours in the breast. Delbet further suggests that the name *acinoma* would be more strictly accurate than adenoma. It is, however, most inadvisable to introduce new names into an already crowded nomenclature unless such additions be really required. We have, indeed, evidence to show that the name "acinoma" is not strictly accurate, for it has been already insisted that in their pathological behaviour we are little able to distinguish between the acini and the smaller ducts. Labbé and Coyne are amongst those pathologists who view these tumours as simple connective tissue growths, and they distinguish two varieties—one in which the cysts contained in the tumour are devoid of vegetations—the "pericanalicular fibroma," and another in which the cystic spaces in the tumour are occupied by intra-cystic growths—the "endocanalicular fibroma." These names become unnecessary if we allow that the glandular elements are

an essential part of the structure of the tumour, and not merely passive remains of pre-existing spaces around or within which the fibrous tissue has grown.

Let us now pass to the consideration of a tumour which, in its clinical features, very closely resembles the fibro-adenoma. The resemblance is complete in every essential feature; the difference consists only in the greater softness of the tumour and its more rapid rate of growth. In order that I may clearly identify the tumour of which I am speaking it is only necessary for me to say that it is commonly known as the "soft adenoid" or "adeno-sarcoma." In its microscopic structure it closely resembles that of the fibro-adenoma. The description already given of the varieties exhibited by the glandular elements of the latter growth may be equally well applied to it. The cystic development does not reach such a stage as to influence the clinical features of the growth, which presents itself as a soft solid encapsuled tumour. The difference between this growth and the fibro-adenoma exists only in the stroma, which is represented by a highly cellular tissue instead of the dense fibrous tissue found in the harder tumours. (Fig. 5.) Every variation occurs between a fibrous stroma rich in small spindle cells and an extremely soft, highly cellular tissue, composed of mixed oval and round cells, with little or no actual fibrous tissue in it. The close relationship of these tumours to the hard fibro-adeno-

FIG. 5.

Soft fibro-adenoma.

mata receives very strong support both on pathological and clinical grounds. A gradual alteration in the character of the stroma is alone required to convert the one into the other, and the result is an increased rate of growth and nothing more. Those pathologists who call the fibro-adenoma a fibroma are perfectly consistent, but equally unfortunate, in classing the tumour now under consideration as a "sarcoma." The pathological objections are precisely similar in the two instances and need not be repeated. The glandular tissue is still the essential part of the structure of the tumour, which may justly be added to the class "adenoma," and for purposes of distinction may be conveniently named the "soft fibro-adenoma." The use of the name "adeno-sarcoma" is objectionable; it suggests that the growth is a variety of sarcoma and not a variety of adenoma, and, therefore, suggests the idea of a malignancy which none of these tumours possess. It causes serious confusion to introduce the word sarcoma into the nomenclature of glandular tumours, simply because the stroma is soft and cellular. True sarcoma of the breast, to which I shall have occasion to briefly refer later, has all the characters, clinical and pathological, of sarcomata elsewhere.

The statistics concerning sarcoma of the breast are valueless when compiled by those who include the soft fibro-adenoma (the so-called adeno-sarcoma) under this heading. The chief differences may be arranged as follows: 1. The soft fibro-adenomata are perfectly encapsuled, and contain glandular tissue as an essential part of their structure. The sarcomata are at the most imperfectly encapsuled, and contain no glandular tissue (except, perhaps, such as in process of invasion). 2. The soft fibro-adenomata, although they may be of rapid growth, are throughout non-malignant, and, unlike the sarcomata, are never recurrent after removal. 3. The soft fibro-adenomata never give rise to secondary deposits in the lymphatic glands or elsewhere. In the light of such essential differences it seems to me that we are altogether unwarranted in classing together these two forms of tumour simply because each contains an abundance of cellular tissue.

ABSTRACT OF AN

Address

ON

THE ROYAL VICTORIA HOSPITAL AND THE ARMY MEDICAL SCHOOL.[1]

Delivered at Netley, on Wednesday, May 30th, 1894,

BY HENRY CAYLEY, F.R.C.S.ENG.,

DEPUTY-SURGEON-GENERAL, BENGAL ARMY, RETIRED; PROFESSOR OF CLINICAL AND MILITARY MEDICINE IN THE ARMY MEDICAL SCHOOL, NETLEY.

GENTLEMEN,—The members of the Southern Branch of the British Medical Association have done me the honour of electing me their president for the coming year. I feel highly flattered by their choice and beg to express my very sincere thanks for the distinction they have conferred on me. I have, too, the satisfaction of feeling that in selecting me as president, and in holding the meeting at Netley, the members have shown their close sympathy and fellowship with the great public services, the Home and the Indian Medical Services, which are so intimately associated with Netley. On this occasion, Gentlemen, I am expected to deliver an address, and I have found the choice of a fitting subject somewhat difficult. The greater part of my medical life, as many of you know, has been passed in India, and I have had little personal experience of the life of the medical practitioner at home. On this occasion I propose to occupy your attention for a brief space by taking up the *rôle* of a "guide to Netley," to its hospital and medical school.

Here at Netley, except the hospital and medical school, there are no objects of medical interest to which to call your attention, such as are usually found in places where our annual meetings are held. We are a sort of "microcosm," our population belongs almost solely to two institutions which are part of one another—one a special hospital for invalid soldiers coming from foreign service, the other an army medical school. The institutions at Netley may to some of you possess a personal interest, as some of you may yourselves at one time have thought of entering one of the military medical services, or you may have sons in whose cases the question may arise. All officers of these services have to go through a course of study at Netley before getting their commissions.

The Royal Victoria Hospital at Netley was opened in 1862. Previous to this there was a hospital for invalid soldiers at Fort Pitt, in Chatham, on a much smaller scale, and one quite inadequate for the wants of the British Army. At Fort Pitt, also, there was for two or three years a medical school for the young army surgeons. During and after the Crimean War, in 1854 and 1856, when, as you know, the failure, the breakdown of our medical arrangements was as complete as that of nearly every other branch of army organisation—this was not from any fault, not from any want of skill, knowledge, or want of devotion to duty on the part of the medical officers themselves, but solely from general defects in the position and organisation of the department—a Royal Commission, of which Mr. Sydney Herbert, the then Secretary of State for War, was president, was appointed for the purpose "of investigating and reporting on the various subjects connected with the health and the medical administration of the British army." This inquiry resulted in the establishment of an army hospital for the sick

[1] Presidential Address to the Southern Branch of the British Medical Association.

and wounded officers and soldiers coming from all foreign stations. The scheme was warmly and actively supported by the Queen and the late Prince Consort, who took the deepest personal interest in carrying it out, aided by Miss Nightingale, whose labours on behalf of the suffering British soldier in the Crimea are so well known. In conjunction with the hospital an army medical school was organised for the "special instruction of army surgeons before taking up their military duties, and also as a training school for hospital orderlies and attendants upon the sick." The present hospital, the magnificent building which you see facing Southampton Water, was commenced in the year 1856 and opened in 1862. In that day it was looked upon as the perfection of hospital construction, but our more advanced hygienic knowledge of to-day would find much that is faulty in the arrangement and structure. The hospital forms one continuous building three storeys high. On each floor along the south-western aspect there is a continuous glass-fronted corridor, extending the whole length of the building, upwards of a quarter of a mile in length. Into these long corridors all the wards, of which there are nearly thirty on each floor, open. All the wards also open by windows to the north-east. The wards vary in size, holding from nine to thirteen beds. In the centre block of the building are the lecture and operating theatre, the chapel, the library and museums, the swimming-bath, and the quarters for sick officers, for the surgeons on probation, and the nursing staff; on the ground floor are the offices of the military and medical administrative staff. At the back of the main building are the barracks of the Medical Staff Corps, the canteen, and the laboratories of the medical school. The hospital gives accommodation for upwards of 800 ordinary cases. Without counting the patients in the lunatic asylum, there are now upwards of 1000 sick in the building. During the Egyptian war the accommodation had to be largely supplemented by tents put up in the grounds.

The class of patients and the diseases from which they commonly suffer differ widely from what we are accustomed to see in other large hospitals. In the first place the patients are all soldiers and nearly all adult men in the prime of life; as a rule they are invalids from abroad. In the medical wards the diseases are chiefly what one may call "foreign diseases," and present great variety. The effects of frost-bite and heat-stroke are represented, and, as so many men serve in India and other malarial countries, we get a large number of cases of the endless varieties of malarial fever. Then there are many cases of tropical diarrhœa and dysentery, of abscess and other affections of the liver, set up by living in hot climates, and of that special form of fever commonly known as Mediterranean or "rock" fever, which is met with in nearly all parts of the Mediterranean. Our late assistant professor of pathology at Netley, Surgeon-Captain Bruce, has very carefully investigated the nature of this fever in Malta and has shown that it is due to the presence of a special bacillus or micrococcus. Amongst the patients at Netley there are, of course, many cases of that ubiquitous disease, tuberculous phthisis; it is, however, gratifying to know that the ravages of this disease among soldiers have been much lessened of late years. Another very prevalent affection among the patients at Netley is heart disease. The age of the soldier, of course, precludes the ordinary chronic heart affection of middle and advanced life. What soldiers especially suffer from may be termed "functional heart-disease"—the soldier's irritable heart. From a military point of view the affection is of the greatest interest and importance, for it is seldom that a soldier is again fit for military duty after the symptoms have once become fully developed. On the surgical side, which makes up about 300 beds, surgical diseases and injuries in great variety are treated, and in war time the wounded are sent to Netley for final treatment. Of the large number of invalids admitted to Netley those who recover after a reasonable time in hospital are sent back to duty. A considerable number are permanently invalided as unfit for further military service and are discharged with pension or gratuity. A few—happily in these days only a very small proportion—die; the deaths are chiefly due to phthisis, heart disease, and chronic dysentery.

The Army Medical School was originally located at the Fort Pitt Military Hospital at Chatham and was opened in 1860 by Lord Herbert. When the Royal Victoria Hospital was opened in 1862 the school was transferred to Netley and was placed on a more extended footing. The first professors were Sir Thomas Longmore, Dr. Parkes, Sir William Aitken, and Surgeon-General Maclean, two of whom—Dr. Parkes and Sir W. Aitken—after distinguished careers as teachers, authors, and men of science, have passed over to the majority. Longmore and Maclean happily are still with us, enjoying their well-earned rest after many years of arduous and distinguished labour. The school at first received the medical officers of the three services—the Navy, the Army, and the Indian Medical Service; but some fifteen years ago the training school for the navy was removed to Haslar Hospital. We are now in the sixty-eighth session of the school; each year there are two sessions, and on an average about thirty-five surgeons on probation join at Netley every term. In the course of instruction endeavour is made as much as possible to specialise the subjects taught and to adapt them to the requirements of military service. The young surgeons are put in charge of the hospital wards, and they are required to order the diets and to give all the directions needed for the treatment and management of the patients, under the supervision of experienced medical officers. They have also to see that the orderlies and other attendants perform their duties properly, to keep the hospital books and returns, and to make out the weekly state of sick and other papers required, so that they become acquainted with all the routine duties of military hospitals. There are four special subjects taught at Netley, in each of which a regular course of lectures is delivered. In Military Medicine attention is particularly given to the diseases of tropical climates. Six lectures are also delivered on lunacy and the treatment of mental affections in the army. Military Surgery is taught by Brigade-Surgeon-Lieutenant-Colonel Stevenson; the subject of defective vision from errors of refraction and the means of rectification are also taught practically, and training is given in the examination of military recruits. The two remaining subjects are Military Hygiene and Pathology, which are taught, by Professors Lane Notter and Wright, both in the lecture theatre and in their well-equipped laboratories. The whole course of instruction at Netley is intended as far as possible to supplement, and not to repeat, the regular curriculum of medical education by adding the special knowledge that is needful for a military medical officer.

There are also taught at Netley all the military duties of officers of the Medical Staff Corps. The surgeons on probation go through a course of squad, company, and stretcher drill and are members of a strictly regulated military mess, in which they have to conform to all the usages of such an institution. When a surgeon on probation leaves Netley and receives his commission he is fully equipped and competent to undertake whatever duties may be entrusted to him. The records of the medical services show how well, how nobly these duties have been performed. In times of war, of arduous service, of sickness, and of danger the army surgeon is ever to the front, conspicuous for his devotion to duty. I need not mention names, but cannot refrain from an expression of deep regret for the loss the service has sustained in the recent death of that *beau-idéal* of an army medical officer, Surgeon-Major Parke, so lately one of us on the Netley staff. Men such as Parke add lustre to a service and are an honour to our great profession of medicine, and the rolls of the services contain many such names.

I fear I have taken up too much of your time; your kind patience must be exhausted. I will only add that on behalf of my colleagues and myself I bid you a most hearty welcome to Netley Hospital and the Medical School.

RESULTS OF THE MAJOR AMPUTATIONS TREATED ANTISEPTICALLY IN THE ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE,

DURING THE YEAR 1893, AND FOR A PERIOD OF FIFTEEN YEARS AND NINE MONTHS—VIZ., FROM APRIL 1ST, 1878, TO DEC. 31ST, 1893

BY FREDERICK PAGE,

SURGEON TO THE ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE, ETC.

DURING the year 1893 seventy-four major amputations were performed in the Royal Infirmary upon seventy-one patients, three of the cases being double amputations, and ten patients died, sixty-one recovering. This is a mortality of 14 per cent., nearly the same as during the year 1892 and a little higher than in 1891. Twenty-eight of the amputations were for injury. Two men lost both legs, and recovered; one lost a

foot and a thigh, and recovered; and three patients died after amputation of the thigh. The mortality, therefore, after amputation for injury was 10·7 per cent. For disease forty-three amputations were performed, and seven patients died—16·2 per cent. The following table gives the results in a tabular form:—

TABLE I.—*Major Amputations treated Antiseptically in the Royal Infirmary, Newcastle-upon-Tyne, during the year 1893.*

Seat of amputation.	Injury.			Disease.			Total.
	Number.	Recovered.	Died.	Number.	Recovered.	Died.	
Double amputation ..	3	3	0	0	0	0	3
Hip-joint	0	0	0	4	2	2	4
Thigh	7	4	3	16	12	4	23
Leg	8	8	0	8	8	0	16
Ankle-joint	2	2	0	11	11	0	13
Shoulder-joint	2	2	0	3	2	1	5
Arm	3	3	0	1	1	0	4
Forearm	3	3	0	0	0	0	3
Total	28	25	3	43	36	7	71

EXPLANATION OF DEATHS.

Injury.

1. A boy eight years of age. Died from shock a few hours after primary amputation of the thigh for compound fracture of the thigh and leg.

2. A man twenty years of age. Died from shock a few hours after primary amputation of the thigh for compound fracture of femur into the knee-joint.

3. A lad eighteen years of age. This patient died after secondary amputation of the thigh. He was admitted suffering from traumatic gangrene of the leg of five days' standing, having refused primary amputation outside. He never properly rallied, and died in sixty hours.

Disease.

4. A man sixty-nine years of age. Died from shock sixty hours after amputation of the thigh for spontaneous gangrene of the foot and leg.

5. A man sixty-two years of age. Died from exhaustion three weeks after amputation of the thigh for spontaneous gangrene of foot and leg.

6. A man sixty-two years of age. Died from exhaustion two weeks after amputation of the thigh for spontaneous gangrene of the foot and leg.

7. A man forty-four years of age. Died from shock a few hours after amputation at the hip, performed for tuberculous disease of the hip and knee-joint.

8. A boy eight years of age. Died from shock a few hours after amputation at the hip for tuberculous disease of the hip-joint.

9. A lad sixteen years of age. Died three weeks after amputation of the thigh for suppurating tuberculous disease of the knee-joint from pyæmia. The patient was suffering from pyæmia when admitted into the infirmary and at the time of operation.

10. A man fifty-four years of age. Died two hours after amputation at the shoulder-joint for diffuse cellulitis of the upper arm. He was a chronic drunkard, had albumen in his urine, and was dropsical.

The mortality after amputation during the past year has undoubtedly been high compared with that of many previous years, being 14 per cent. For disease it has been unusually high—16·2 per cent.,—far too high. The mortality following amputation for injury has been considerably lower than that following amputation for disease—10·7 per cent.,—an unusual experience. The nature of the fatal cases fully accounts for the high death-rate. Only one patient died during the year from pyæmia, and he was suffering from pyæmia on admission and at the time of operation. This is the feature of the report to which I wish more particularly to direct attention—the absence of pyæmia as a cause of death after amputation. It is the second year in succession that no death has occurred from blood poisoning in the infirmary after amputation. Twenty years ago most of the deaths after amputation arose from pyæmia. During 1892 all the deaths after amputation arose from shock. Not one of the patients who died last year after amputation died in consequence of the operation, although death was undoubtedly accelerated, probably in each case. In all the 10 cases death was unavoidable. It was the inevitable result and natural sequence of the condition the patients were in, and from which amputation—the only possible treatment in the judgment of the surgeon—failed to rescue them. In estimating the mortality from amputation in contradistinction to deaths after amputation, deaths from shock occurring a few hours after operation ought, I think, to be excluded, for at present a death from shock is often quite beyond control. The time may come when we shall be better able to prevent death from shock than we are at present; we are certainly better able to avoid the effect of shock now than we were even twenty years ago, or many of the prolonged and serious operations now successfully performed would not be attempted. Pyæmia is preventable and should not arise in a properly equipped and managed hospital. Should, unfortunately, a case of pyæmia arise or be admitted, it is exceedingly difficult to determine what is the best treatment. Even in the old days, when pyæmia was the cause of death in the majority of the cases terminating fatally, I have occasionally seen, after a prolonged illness, patients recover; but I cannot call to mind any case of pyæmia treated by amputation recovering.

TABLE II.—*Major Amputations treated Antiseptically in the Royal Infirmary from April 1st, 1878, to Dec. 31st, 1893 (a period of fifteen years and nine months).*

Seat of amputation.	Injury.			Disease.			Total
	Number.	Recovered.	Died.	Number.	Recovered.	Died.	
Double amputations ..	12	7	5	0	0	0	12
Hip-joint	6	3	3	23	13	10	29
Thigh	57	44	13	173	160	13	230
Knee-joint	10	9	1	6	6	0	16
Leg	87	76	11	86	84	2	173
Ankle-joint	27	26	1	129	127	2	156
Shoulder-joint	19	18	1	15	14	1	34
Arm	47	42	5	22	21	1	69
Forearm	43	42	1	35	35	0	78
Wrist	7	7	0	0	0	0	7
Total	315	274	41	489	460	29	804

It will be noticed that 816 major amputations were performed during the period upon 804 patients, of whom 70 died—8·7 per cent. Forty-one of the deaths followed amputations for injury, 274 patients recovering—a mortality of 13 per cent. Four hundred and eighty-nine of the amputations were for disease, and 29 patients died—a little over 5 per cent. If from the total of 804 patients all were excluded who died in a few hours after amputation, the mortality for the whole period would hardly reach 5 per cent.

Saville-place, Newcastle-upon-Tyne.

ON DOUBLE EMPYEMA IN CHILDREN.

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THE subject of double empyema in children is referred to very briefly in most of the leading text-books, although the disease is recognised as a serious one and of not infrequent occurrence. In this paper I shall describe four examples of the affection and then draw some conclusions from an examination of the published cases. The patients were admitted into Paddington-green Children's Hospital—the first three under the care of Dr. Leslie Ogilvie, who kindly

handed them over to me, and the fourth under the care of Dr. Sidney Phillips, to whom I am indebted for permission to record the case. The surgical treatment was carried out by Dr. C. M. McIlwraith and Mr. H. L. Lack, house surgeons to the hospital, to whose careful treatment must be ascribed the good results obtained.

CASE 1.—A boy five years of age was admitted to the Paddington-green Children's Hospital on Aug. 30th, 1893. A month previously he had had an attack of pneumonia affecting the left lung, which had never thoroughly cleared up. A week before admission there had been a recurrence of acute symptoms—namely, feverishness, cough, dyspnœa, sweating, and pain in the left side. The boy had never been very robust, and there was a history of four previous attacks of congestion of the lungs. The family history was good. On admission the patient looked ill and was suffering from dyspnœa. He had little or no cough, and complained of no pain. The left side of the chest was retracted and did not expand well. Over the left front there was impaired resonance from the apex to the second rib, and below that marked dulness. The stomach resonance extended as high as the fifth rib. In the axilla and over the left side posteriorly dulness was well marked, with the exception of the apex and a small area along the spine, where some resonance still remained. All over the left lung the breathing was bronchial, and accompanied by crepitations and friction sounds. The right lung presented no abnormal physical signs. Cardiac action was rapid but regular. No distinct apex-beat could be felt, but percussion showed that the area of dulness extended to the right border of the sternum. During the following fortnight the patient's condition continued unsatisfactory. The temperature was elevated, between 100° and 101° F., the respirations were from thirty to forty per minute, and there was a good deal of sweating at night. On the fourteenth day after admission the physical signs over the left lung were as follows: at the upper part the percussion note was tympanitic and the breathing bronchial; over the lower part there was increased dulness on percussion, and the breathing was distant bronchial. Vocal fremitus and vocal resonance were absent in the axilla and around the inferior angle of the scapula. The area of cardiac dulness extended slightly beyond the right border of the sternum. The presence of pus having been proved by means of the exploring needle, on the eighteenth day Dr. McIlwraith resected the left eighth rib in the posterior axillary line. On opening into the pleural cavity no pus escaped, and on introducing the finger soft adhesions were found. These were broken down, and on passing the finger upwards and backwards a cavity was reached from which about five ounces of fluid pus escaped. On free irrigation flaky masses of pus were removed. The lung re-expanded rapidly when the patient coughed. Marked improvement followed this operation, but on the twenty-third day the temperature again rose and continued to be very irregular. The removal of the tube on the thirty-first day led to a further improvement, but this was not maintained. On the fortieth day examination of the right side of the chest showed marked dulness at the base, both anteriorly and posteriorly, with distant bronchial breathing and an absence of vocal fremitus and vocal resonance. Four days later the eighth rib on the right side was resected below the angle of the scapula. About three ounces of pus were evacuated, and numerous soft adhesions were found round the cavity. These were broken down, and more pus escaped, the condition apparently being a loculated empyema. Free hæmorrhage occurred from the breaking down of the adhesions. At the time of the operation the scar on the left side, which had apparently become tuberculous, was dissected out and dressed with iodo-glycerine. The left pleural cavity was not reopened. Rapid improvement followed, and after the removal of the tube on the fifty-sixth day the temperature became normal and continued so. On the sixty-sixth day both wounds were soundly healed, and the patient was discharged ten days later. The pulmonary condition on both sides was good, but there still remained some bronchial breathing at the left apex. He was seen again three months later, and, while no external evidence of the illness existed with the exception of the operation scars, there were some rales at the left apex, and he had a slight cough, with occasional sweating at night.

CASE 2.—A girl aged five years was admitted to hospital on July 22nd, 1893. Two months previously she had had an attack of "congestion of the lungs," from which she had never thoroughly recovered. She still suffered from cough, sweating, and loss of appetite, and had been wasting rapidly. Her previous health had been good, and there was no family history of phthisis or other constitutional disease. The patient on admission was thin and anæmic, with a pasty complexion and slight clubbing of the fingers. Over the right side of the chest there was considerable flattening, and expansion was deficient. No bulging of the intercostal spaces was present. There was a slight spinal curvature in the dorsal region, with the concavity towards the right side. Over the right lung the percussion note was impaired from the apex to the level of the third rib anteriorly, and of the middle of the scapula posteriorly; below that there was absolute dulness. In the upper part the breathing was loud bronchial, with occasional crepitations and bronchophony. In the lower part the breathing was distant bronchial, and vocal resonance was absent. On the left side the pulmonary condition appeared normal. The apex-beat was in the fifth space in the nipple line. On the same day the chest was opened. While the patient was being put under chloroform a small amount of pus, less than a teaspoonful, was coughed up... Dr. McIlwraith resected the sixth rib in the right anterior axillary line, and a considerable amount of fluid pus mixed with some curdy matter was evacuated. The lung was retracted towards the upper and posterior part of the chest, and some adhesions in that region were broken down with the finger, after which the lung expanded up to the opening when the patient coughed. Three days later the tube was left out as the discharge had almost ceased, the temperature was normal, the pulse 80 per minute, and the respirations 24. Five days after admission the temperature rose suddenly to 105° F., and dyspnœa and cough came on, accompanied by expectoration of thick mucoid material, slightly blood-stained. The patient continued acutely ill for the next seven days. During the first five days the temperature remained about 104°, and during the following two days about 103°, except when artificially lowered. No abnormal physical signs were detected on the right side of the chest to account for the patient's condition, and, although the operation wound was frequently dressed and a drainage-tube reintroduced, there was practically no discharge. On the thirteenth day after admission the temperature commenced to fall and soon reached normal. The same day it was noted that there was impaired resonance in the left axilla, and that the breathing there was distant bronchial, with crepitations and rhonchi. From the fifteenth to the thirty-eighth day the patient improved to some extent, but the temperature continued irregular, although never very high. The cough and dyspnœa ceased entirely, but she was breathless on exertion. The abnormal physical signs on the right side of the chest were less marked, while those on the left pointed to an extension of the disease. The dulness in the left axilla had extended to the level of the fifth rib in front and to the mid-scapular line behind. Over this area the breathing was bronchial or tubular, with numerous crepitations, and bronchophony was marked. The heart was regular in its action and normal in position. None of the other organs showed any sign of disease. On the thirty-eighth day the temperature again rose, and during the following fortnight was hectic in type. The only apparent cause was an increase in the intensity and distribution of the physical signs over the left side of the chest. It was resolved to explore the dull area, and a needle was passed into the middle of the left axillary region on the fifty-fifth day, when pus was obtained. Two days later the sixth rib was resected in the mid-axillary line on the left side. On opening the pleural sac a small quantity of pus, thick and gelatinous, was evacuated. This was contained in a cavity which lay between the lobes of the lung. There were firm pleuritic adhesions around the opening. Marked improvement followed the operation, and the pyrexia ceased at once. The subsequent discharge was trifling in amount, and the drainage-tube was removed on the tenth day. Convalescence was interrupted by an attack of otitis, but the patient left the hospital cured on Oct. 19th. The course of this child's illness would appear to have been, first, an attack of pneumonia on the right side followed by empyema, and later an attack of pneumonia deeply seated on the left side, with a subsequent empyema situated between the lobes of the lung.

CASE 3.—A boy aged six years was admitted to hospital on May 5th, 1893. A month previously he had had an attack of "congestion of the lungs," the feverish stage lasting for a week. He had never thoroughly recovered, and a troublesome cough remained. His appetite was poor, he had been losing flesh, and there was profuse sweating at night. There

was a somewhat indefinite family history of tuberculous disease. The boy on admission was anæmic and suffered from paroxysmal cough and dyspnœa. Expansion of the chest was deficient on the right side. Over the right side of the chest anteriorly the percussion note was tympanitic from the apex to the fourth rib, and below that there was marked dulness. Bronchial breathing was present over the right front, rather feeble towards the base, and vocal resonance and vocal fremitus were increased. Posteriorly, and in the axilla, there was absolute dulness, and very faint breathing all over with the exception of the apex and a small area along the spine, where a certain amount of resonance remained, with loud breathing and bronchophony. On the left side of the chest expansion was increased and the note was resonant all over. The cardiac apex was in the left nipple line. On May 10th the right pleural cavity was aspirated, but only a small quantity of thick gelatinous pus was obtained. Two days later Dr. McIlwraith resected the seventh rib on the right side below the scapula. At first there was a very slight discharge of pus, but when the patient coughed about ten ounces of fluid pus were quickly expelled and the lung expanded at once up to the opening. On introducing a finger some adhesions were found in the axilla and along the spine, which were broken down. Rapid improvement followed, and the drainage-tube was left out on the fourth day, the discharge being trifling. Convalescence was uninterrupted, and the patient was discharged cured on June 22nd. He continued in good health until Sept. 14th, when he became feverish and complained of pain on the left side of the chest. A medical man was called in who diagnosed acute pneumonia of the left base. A fortnight later the patient came to the hospital and signs of pleural effusion were detected on the left side. As these increased he was readmitted on Oct. 5th. Expansion of the left side of the chest was deficient, and local fremitus was diminished anteriorly and absent posteriorly. The upper part of the left side of the chest gave a tympanitic note on percussion to the level of the third rib in front and of the spine of the scapula behind. Over the rest of that side there was marked dulness, with distant bronchial breathing and ægophony. The right lung presented no abnormal physical signs, and the heart was not apparently displaced. On Oct. 12th Dr. McIlwraith resected the seventh rib in the left posterior axillary line. On opening the pleural cavity some ounces of thick pus mixed with flaky material were evacuated. The cavity was explored, and the lung was found to be retracted upwards and backwards, and adherent to the chest wall. These adhesions were broken down with the finger, and on irrigating the cavity more pus and curdy material were removed. The temperature continued rather hectic for a time, but on the twelfth day after the operation the tube was removed, and the temperature soon became normal and continued so. There remained some flattening of the left side of the chest, but gymnastic exercises were employed regularly, and when the patient left the hospital on Dec. 27th the two sides were symmetrical. The lungs were resonant on percussion, and the only trace of his illnes was somewhat harsh breathing over the left side.

CASE 4.—A girl aged two and a half years was admitted to hospital on June 15th, 1891. A fortnight previously she had had an attack of influenza. Four days before admission she became convulsed and continued feverish and drowsy. She was extremely tender to touch all over, and cough and sweating were present. In the family history there was nothing of importance. On admission the child was anæmic and looked ill. The temperature was 100° F., the pulse 130, and the respirations 60 per minute. Over the right lung posteriorly, extending from the spine of the scapula to the base, and in the axillary region, was an area of absolute dulness, where breath sounds and vocal resonance were absent. The percussion note over the rest of the lung was resonant, and occasional crepitations were audible. The left lung was apparently normal, and the heart was not displaced. Pus having been obtained on exploration, the sixth rib on the right side was resected on the following day by Mr. H. L. Lack, and a large quantity of thin greenish pus was evacuated. The lung expanded well, there being no adhesions, and the cavity was thoroughly irrigated with weak sublimate solution. On the following day the amount of pus in the dressings was very small, and the drainage-tube was removed. At the end of a week the progress made was not satisfactory. The respiration continued rapid, and the temperature was high. On June 27th dulness was present at the left base both anteriorly and posteriorly, with faint tubular breathing. An exploring needle was introduced, and pus was obtained. Resection of the sixth rib in the left mid-axillary line was performed, and a large quantity of curdy pus was removed. Marked improvement followed this operation, and the tube was removed on the third day. Both wounds were still discharging, the right one but slightly, and on July 16th all discharge had ceased. The patient was sent home cured on July 24th.

Remarks.—On looking over the literature of double empyema I have found seventeen cases in children and adolescents of which the notes are sufficiently full to be of value for statistical purposes. A synopsis of these cases, and of the four here recorded, will be found in the accompanying table. As regards the etiology, examination shows that fourteen (or 67 per cent.) were secondary to lobar pneumonia, one was preceded by influenza, one by broncho-pneumonia, two are described as primary, and in three the history of previous illness is indefinite. This corresponds very closely with the statistics of unilateral empyema given by Adam,[1] who found that in thirty-two cases twenty-three (or 71 per cent) were preceded by lobar pneumonia. Hence it may be definitely stated that empyema, single or double, is in most cases secondary to an attack of lobar pneumonia. The accompanying table further shows that pneumonia was ascertained to be present on both sides in eight out of fourteen cases; and as double lobar pneumonia is usually a secondary affection it is possible that influenza may have been a factor in some of the cases. Tuberculosis does not seem to play an important part and is mentioned but once in the above list, where it is stated that pulmonary mischief remained and the scar had become tuberculous. Broncho-pneumonia, although usually bilateral, is given only once as the preceding disease. Two cases are described as primary or idiopathic, but as those terms are now almost discarded in connexion with simple pleural effusion their applicability to empyema is open to grave question.

As regards treatment, aspiration was employed in nine of the cases on thirty-two occasions in all. In one case a cure was effected after the second aspiration, the empyema on the opposite side being treated by incision and drainage. In two of the cases the treatment by aspiration was repeated frequently during a prolonged period owing to the parents' objections to other operative measures. In No. 3 aspiration was performed eleven times in the course of six months, and at the end of that time the patient was in an extremely critical condition, but recovered after the operation of double resection and drainage. In No. 14 aspiration was performed five times in two months, and it was not until pleurotomy with drainage was practised that the patient began to mend. Other cases illustrate the tendency there is to a rapid reaccumulation of fluid after aspiration—for example, No. 12, where, during four days, eight pints of pus were removed in the course of five aspirations. It is evident that, while this method of treatment may be employed as a preliminary measure, in few cases will the relief be permanent, while repeated aspiration is useless and only endangers the patient's chance of a complete recovery.

The more thorough treatment by making a free opening in the chest-wall and draining the abscess cavity has been found the more successful in cases of double empyema. In this country resection with drainage seems to be preferred, while in America and Germany incision with drainage is more common. From the accompanying table it will be seen that resection was performed on twenty-two occasions—ten times on both sides, and twice on one side only; while incision was practised on eighteen occasions—eight times on both sides, and twice on one side only. Irrigation was employed in several of the cases, in some at the time of the operation only, and in others at the subsequent dressings also. This latter proceeding is usually considered unnecessary, except in septic cases. The interval between the operations was in one case two days, in two cases four days, in one case five days, in two cases seven days, and in all the others more than a week had elapsed before the second empyema was opened. A considerable amount of shock frequently followed the evacuation of the abscess, in some cases more marked after the first, and in others after the second operation. The exact length of time during which the drainage-tube remains in the chest is of importance, because the longer the wound remains open the less prospect is there of a complete restoration of the lung and chest-wall

[1] Archiv f. Kinderheilkunde, Band xv., Hefte v. und vi.

to normal action and form. In the accompanying table, of the first seventeen cases the exact duration of drainage is stated in fourteen (or twenty-eight operations), and was on an average seven weeks, while in the last four cases (or eight operations) it was seven days. The results of treatment, there being but one death out of twenty-one cases, are very satisfactory, but do not probably represent the ordinary mortality, as the table is composed chiefly of isolated and selected examples of double empyema.

In conclusion, I wish to direct attention to some points in the management of this affection. The chief problem presenting itself in the treatment of double empyema has been as to how respiration can be carried on if a free opening into both pleural cavities is present. Mr. Godlee has stated that "if a general empyema has been opened and another form on the opposite side, it is obvious that the only surgical treatment for the second collection is by aspiration."[2] On the other hand, it is asserted by Dr. Coupland and Mr. Gould that "to open a double empyema cannot lead to collapse of lung, and is sure to be quickly followed by more or less expansion of lung,"[3] and they base this statement on the fact that adhesions are always present and prevent any further collapse, or, in other words, that such a condition as a general empyema does not exist. It is, however, no very uncommon thing to see a general empyema either during life or on the post-mortem room table; and, even admitting that adhesions are commonly present, it must be remembered that the lung has usually retracted towards the mediastinum and spinal hollow and away from the diaphragm and the most movable parts of the ribs. In other words, the lung is removed from the forces which take an active part normally in its expansion, and the adhesions present will not tend in any way to its re-expansion. In the case of small and localised empyemata I think the statement of Dr. Coupland and Mr. Gould will certainly apply, but these are extremely difficult to diagnose with certainty until they have been opened, so that Mr. Godlee's advice is probably safer and more general in application. It is further a question whether in any case of double empyema there is a necessity for having a drainage-tube in both pleural cavities at the same time. I do not believe that any treatment is so satisfactory and so speedy as that of resection. If at the time of the operation the boundaries of the abscess are explored and all loose adhesions broken down the chief cause of non-expansion of the lung is done away with. This is tested by making the patient cough, when the lung, if not tied down, will be quickly expanded by air driven into it from the opposite lung. If, in addition, the pleural cavity is carefully and thoroughly irrigated, and all pus whether fluid or solid evacuated, the chief source of pleural irritation is removed. A short drainage-tube should then be introduced, and it can, as a rule, be taken out during the first week. My reasons for this line of treatment have been given fully in a previous paper,[4] and need not be repeated here. In support of this practice of temporary drainage I may direct attention to the above four cases described in full, in which the average duration of drainage was seven days, as contrasted with seven weeks in the cases published by other writers. The advantage to the patient will probably be at once admitted, but what I wish specially to note is its bearing on cases of double empyema, where, if one side is speedily cured, the other side can then be treated without danger in the same radical manner, aspiration having been performed, if necessary, in the meantime, as recommended by Mr. Godlee. Some special precautions are certainly necessary; for in the reported cases of "simultaneous drainage" the amount of collapse has frequently been alarming, and the signs of cardiac and respiratory embarrassment very marked. As regards the side of the chest to be operated on first in cases of double empyema the greatest relief will probably be obtained by selecting the side on which there appears to be the largest amount of fluid. After the operation wounds have healed an important part of the treatment is the employment of forced respiratory movements and chest-expanding exercises, so as to maintain full expansion of the lungs and prevent any falling in of the thoracic walls.

Carlton-hill, N.W.

TABLE OF TWENTY-ONE CASES OF DOUBLE EMPYEMA.

No.	Reference.	Age.	Sex.	Preceding disease.	Treatment.	Duration of drainage.	Result.
1	Bristol Med. Chir. Journal, December, 1893 (W. J. Fyffe).	17	M.	Double pleuro-pneumonia.	Double incision and drainage.	Right, 5½ weeks; left, 4 weeks.	Cure.
2	THE LANCET, July 19th, 1890 (Morgan and Bruce).	6	M.	Pneumonia.	Aspiration (four times); later, double resection and drainage.	Right, 5 weeks; left, 4 weeks.	Cure.
3	Clin. Soc. Trans., vol. xxiv. (Coupland and Gould).	7	F.	Double pleuro-pneumonia.	Aspiration (eleven times); later, double resection, irrigation, and drainage.	Right, 5 weeks; left, 6 weeks.	Cure.
4	THE LANCET, June 11th, 1892 (Deanesly).	10	F.	Pneumonia.	Aspiration (twice); later, double resection and drainage.	—	Cure.
5	Ibid.	1½	—	Indefinite.	Single resection and drainage.	—	Sudden death 12 days later.
6	THE LANCET, July 21st, 1888 (Blunt and Okell).	5	M.	Pain on both sides of chest.	Right, resection and drainage; left, incision and drainage.	Right, 7 weeks; left, 4 weeks.	Cure.
7	Clin. Soc. Trans., vol. xxvi. (Carr).	7	M.	Double pneumonia.	Aspiration (once); double resection and drainage.	Right, 8 weeks; left, 10 weeks.	Cure.
8	THE LANCET, June 20th, 1891 (Handford).	7½	M.	Pneumonia.	Double resection and drainage.	Right, 9 weeks; left, 9 weeks.	Cure.
9	Archiv. of Pædiat., vol. vi. (Huber).	13	M.	Double pleuro-pneumonia.	Aspiration (once); double incision, irrigation, and drainage.	Right, 5 weeks; left, 5 weeks.	Cure.
10	Ibid.	5½	—	Double pleuro-pneumonia.	Double incision, irrigation, and drainage.	Right, 4 weeks; left, 4 weeks.	Cure.
11	Ibid., vol. ix. (Huber).	6	M.	Right lobar pneumonia.	Double incision, irrigation, and drainage.	Right, 8 weeks; left, 8 weeks.	Cure.
12	New York Med. Record, vol. xxxiv. (Gardiner).	15	M.	None.	Aspiration (five times); later, double incision and drainage.	Right, 8 weeks; left, 7 weeks.	Cure.
13	THE LANCET, Oct. 16th, 1880. (Sangster).	2	M.	Broncho-pneumonia.	Right, incision and drainage; left, aspiration (twice).	—	Cure.
14	New York Med. Journ., vol. lii. (Westbrock).	4	F.	Right lobar pneumonia.	Right, incision and drainage; left, aspiration (five times); later, incision and drainage.	Right, 12 weeks; left, 7 weeks.	Cure.
15	Oertl. Intell. Münch., 1883 (Brauser).	3	M.	Scarlet fever and double pneumonia.	Double incision, irrigation, and drainage.	Right, 7 weeks; left, 7 weeks.	Cure.
16	Annals of Surg., 1893. (Warbasse).	10	F.	None.	Double resection, irrigation and drainage.	Right, 17 days; left, 17 days.	Cure.
17	Liverp. Med. Chir. Journal, 1893 (Marsh).	8	M.	Indefinite.	Right, incision and drainage; left, aspiration (once); later, incision and drainage.	Right, 8 weeks; left, 15 weeks.	Cure.
18	THE LANCET (vid. sup.).	5	M.	Lobar pneumonia.	Double resection, irrigation, and drainage.	Right, 12 days; left, 13 days.	Cure.
19	Ibid.	5½	F.	Double lobar pneumonia.	Double resection, irrigation, and drainage.	Right, 3 days; left, 10 days.	Cure.
20	Ibid.	6	M.	Double lobar pneumonia.	Double resection, irrigation, and drainage.	Right, 4 days; left, 12 days.	Cure.
21	Ibid.	2½	F.	Influenza.	Double resection, irrigation, and drainage.	Right, 1 day; left, 3 days.	Cure.

[2] Heath's Dictionary of Surgery: Art., "Empyema."
[3] Transactions of the Clinical Society, vol. xxiv., p. 82.
[4] The Treatment of Empyema. THE LANCET, Jan. 27th, 1894.

CASE OF CONGENITAL SYPHILIS; INFECTION OF THE MOTHER BY HER OWN CHILD.

BY J. A. COUTTS, M.B. CANTAB., M.R.C.P. LOND.,
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WHATEVER differences of opinion may arise as to the inferences to be drawn from the particulars of the case about to be related, it seems to me an important one and well worthy of being placed on record. In an experience of nearly two thousand cases of congenital syphilis, gained during the last ten years at the Shadwell Children's Hospital, a similar one has never presented itself to me, although I have been keenly on the alert for such. With this testimony to its rarity at least, I place before the readers of THE LANCET the following notes, after having, for the sake of brevity, eliminated all that seemed to me inessential or as having little bearing upon the point at issue.

An infant aged eight months was first seen by me at the Shadwell Children's Hospital on Nov. 7th, 1892. For a fortnight previously she had been treated by Mr. Cursham Corner for congenital syphilis and was by him transferred to my care. The father and mother had been married for ten years and had five children. The four eldest were all living and were healthy, and, as far as could be gathered, there had been no snuffles or rash or any syphilitic manifestation in any of them. The father came to see me at the hospital. Although divining the cause of my sending for him, his manner was open and straightforward, and what he stated inspired confidence. Before marriage he had been with "loose women." His fallings from virtue, however, had been but seldom, perhaps numbering half a dozen altogether, and since his marriage he had kept perfectly "straight." He had never to his knowledge had any venereal complaint and on examination presented no outward manifestation of syphilis. There was also an entire lack of any specific taint in the history of the mother. The infant was born at full time and was seemingly healthy; it had never seemed, however, as strong as any of the other four. At three weeks of age it had snuffles, and simultaneously with this, or very shortly after, a slight red rash on the buttocks. The rash only lasted a week or so, but the snuffles persisted for some weeks longer. The illness altogether was so slight that the mother did not seek medical advice for it. At ten weeks of age the child was vaccinated, and there had never been, nor is there now, in the scars anything unusual about the vaccination punctures. Lymph had not been drawn off from the vesicles by the surgeon who operated. With the exception of the slight rash at three weeks of age there had been no sore about the child—on this point the mother was absolutely positive—until the present illness. This commenced about the beginning of September with a "cold in the head," followed in a short time by sores on the buttocks and mouth. The child presented the typical aspect of congenital syphilis. There was marked snuffling, with nasal discharge, and some crusting of the inner surfaces of the nose. The upper lip was stained and excoriated by the nasal discharge. There were a few crusts on the surfaces of both lips, with marked vertical fissuring of these last, and the angles of the mouth were prolonged into ulcerous cracks. The inner surfaces of the lips and buccal membranes were affected with some slight superficial ulceration, and there was a small ulcer on the tongue, and there were what were seemingly mucous plaques on the soft palate. The posterior cervical glands were slightly enlarged, and there was a doubtful patch of cranio-tabes over both occipital bones. The skin was muddy-looking and inelastic. Over the buttocks was a sparse, rusty-coloured, scaly eruption, with infiltration of the skin involved, and in one or two places evidence of past and present ulceration. Around the anus were some slightly raised mucous tubercles. The spleen and liver were both enlarged, and the child was somewhat wasted, this last condition having been intensified during the current illness. About a week after the child's mouth and lips became affected, the mother, who had continued to suckle the infant, noticed two small sores about the right breast nipple. These had increased gradually in size until, on my seeing them for the first time on Nov. 7th, the larger of the two had gained the diameter of a sixpenny piece. This last was situated above the nipple, and the smaller one just below this last and externally to it. Both sores presented the characters of shallow ulcers on the surface of the areola of the nipple, and the larger one encroached slightly on the skin beyond. They were hard and firm to the touch, with well-defined borders, which felt of a somewhat cartilaginous consistency and could be well isolated from the surrounding breast structures. The glands in the right axilla were enlarged. There was complaint of sore-throat, and on examination the pharynx and tonsils were found to be injected and the sites of some slight shallow ulceration. To me there seemed to be a faint roseola over the chest, but neither skin nor throat presented anything that was definitely distinctive.

A fortnight later all the symptoms were intensified. The sores on the breast had increased in diameter. The border of the upper and larger one seemed slightly raised by epithelial overgrowth, and this led to an appearance of deeper cupping over it than was really present. The surface was kept moist by a thin, scanty, serous secretion, and the same sharp demarcation from the surrounding tissues was as marked as before. The throat was now the seat of a marked and typical syphilitic ulceration, and there was a deep ulcer along the right margin of the tongue. The body and flexor surfaces of the limbs were now covered with a profuse, rusty-coloured, coarse eruption, unmistakably specific. There had been marked loss of hair and severe periosteal pains in spite of the iodide of potassium, which had been administered with mercury for the past fortnight. My colleague, Dr. H. B. Donkin, and the resident medical officer, Dr. E. E. Ware, were kind enough to see the patients along with me at this visit. They both unhesitatingly agreed that the infant presented all the usual signs of congenital syphilis, that the throat and rash of the mother were undoubtedly syphilitic, and that the lesions on the breast presented the characteristics appertaining to primary sores.

I saw no more of the cases until Jan. 16th, 1893, when the mother attended again with the child, in response to a letter from the out-patient sister. The child had much improved, but there was still snuffling and staining of the upper lip and chin and there were some mucous tubercles around the anus. The mother, in the interim, had been very ill and obliged to take to her bed for some time. Periosteal pains and sore-throat had been very severe, and there had been much general disturbance of health. Nearly all her hair had now come off. The sores about the nipple had by this time healed up. The lower one had disappeared, but could still be felt as a small cicatrix under the skin. The upper one had much diminished in size, but was apparent as a small mass of scar tissue, flush with the surface of the breast, glistening and somewhat puckered on its exterior, and could be sharply defined from the underlying structures. The rash was disappearing, and some of its former sites were marked by dusky pigmentation. There was still ulceration of the fauces and tongue, and the posterior cervical glands were distinctly enlarged.

Such are the details of what to me is a most interesting case. In view of the importance of the issues it may call up and of the controversy it may excite against my opinions regarding it, I have felt compelled to give at some length the particulars which went to prove that the infant was the subject of inherited syphilis, and the mother that of a primary and acquired one. That exception may be taken to my views of the case I am, of course, fully aware. What cannot be gainsaid, however, is that the infant early in life had suffered from what was apparently a mild attack of congenital syphilis, followed at the age of six months by further manifestations of what, by every criterion we possess, was a relapse of the same complaint of a severer nature than the first attack. Equally certain, too, was it that the mother acquired what were seemingly primary chancres in the breast soon after the appearance of the sores on the infant's mouth, followed in the course of seven weeks or so by unmistakable signs of secondary syphilis. The infant and mother were seen by three other observers who had all had unusual and great experience in both the congenital and acquired forms of syphilis, and when their opinions on the cases fully coincide with that of my own the facts that the infant seemingly suffered from inherited and the mother from primary and secondary syphilis are not to be lightly controverted, whatever construction or explanation others may place upon them. I at once admit that weak points in my case are the absence of any proof of syphilis as regards the father, and the facts of the mother having given birth to four healthy children previously to the patient and having had no miscarriages. The father, however, although he did not consider himself to have ever been the victim of venereal complaint, had in former years placed himself in the way of

acquiring one. In men of his station it is far from unusual to find evidence in later years of a syphilis whose earlier manifestations had been so slight that they had either been missed or neglected. The poverty and privation, too, he had lately experienced, owing to a nearly two years' want of work, may well have intensified any suppressed venereal taint. The fact, also, of the births of healthy children previous to the infant in question is no absolute proof of absence of venereal taint in either parent. A large experience has convinced me that the syphilitic poison is by no means always transmitted in a lessening degree from the first to the youngest child, as taught in text-books. Nothing, indeed, can be more capricious than the way it may manifest itself. A syphilitic infant may be followed by several seemingly healthy ones, and these again by a profoundly syphilitic one. I have, moreover, seen several cases of twins where one was deeply affected and the other seemingly healthy. The state of health of the parents has, in my opinion, more to do with the condition of the child than the mere length of time elapsed from the period of infection. I cannot, then, see that a negative history of syphilis in the father and previous children presents any insuperable barrier to the construction I place upon the facts recorded.

The possibility of a mother bearing a syphilitic infant and herself escaping contagion is an important consideration. Kassowitz of Vienna satisfied himself, after prolonged observation, that in seventy-three cases of syphilitic infants the mothers in forty-six instances escaped all taint; were the immunity of the mother, however, as complete and as frequent as he supposes, then accidents of the nature indicated in the present case would be of constant occurrence. In my large record of congenital syphilis I fancy the percentage of mothers who presented a negative history of any definite sign of infection would not greatly differ from that of the above-named writer. In spite, however, of the frequency of this negative history, and in spite of the safeguards that are assumed by some to be afforded by peculiarities in the placental circulation, it had always seemed to me, on first principles, highly improbable that a mother could bear a syphilitic infant and herself escape, however difficult it might be to prove infection in the majority of cases. Whilst, then, never acknowledging that Colles' law was necessarily as rigid as those of the Medes and Persians, I have hitherto trusted so much in its universality as never to restrain a mother from suckling a syphilitic infant, however free from symptoms of taint she may have appeared; the present case, however, will much diminish my trust in the absolute safety of such a procedure.

It will possibly be suggested that the present case is one of a healthy mother having been contaminated by an infant that had been accidentally inoculated. I would only say that careful inquiry and search enable me to entirely negative such a supposition. A primary sore in an infant is not easily missed by a mother and generally leaves sufficient evidence of its former presence. The clinical features, too, of acquired and inherited syphilis in infancy are sufficiently distinct to prevent mistake between them. Of the former class I chance to have seen several instances, and the symptoms were very different from those occurring in my patient, which were indubitably those of the inherited type.

From what I gather from medical friends to whom I have related the case I am prepared for the doubts with which my interpretation of the above facts will be received. Reference to the literature of the subject, too, did not enable me to find a similar case, of even a doubtful character, recorded. I find, however, many excellent reasons given by eminent authorities why such an eventuality as I have indicated is not only improbable, but impossible. Nevertheless, if theory, however all-prevailing, is not to override observed phenomena, and if the criteria by which we judge of the congenital and primary and secondary forms of acquired syphilis are of any weight, I still contend for my rendering in the present case being a correct one.

Upper Berkeley-street, W.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—The fifty-third annual meeting of this association will be held on Tuesday, June 12th, and the three following days at Kildare-street, Dublin, under the presidency of Mr. Conolly Norman, F.R.C.P.I. The list of papers and subjects for discussion and demonstration promises well.

A CASE OF TRAUMATIC HÆMORRHAGE INTO THE BRAIN; TREPHINING; RECOVERY.

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MEDICAL SUPERINTENDENT OF ST. SAVIOUR'S INFIRMARY, EAST DULWICH.

A MAN aged forty-three was admitted into St. Saviour's Infirmary in an apparently unconscious condition; he could, however, be roused, and he attempted to answer questions, but his speech was thick and quite unintelligible. On a level with and about half an inch to the left side of the occipital protuberance was an irregular, oblique scalp wound about one inch and a half in length and extending down to the bone; there were also severe contusions on the right arm and left thigh. The history obtained from the relatives was that the patient, whilst in a state of intoxication, had fallen down a flight of stairs three days prior to admission and had thus produced the injuries described; that on the following day he had a fit, and he had remained in a semi-conscious condition ever since. He had never been subject to fits before. Later in the evening of admission the patient became more drowsy, and he could not be roused to speak, although he resisted any attempt at passive movement of his limbs, excepting the left arm, which to all appearances was in a state of complete paralysis. His pupils were dilated, equal, and acted sluggishly to light. His eyes were slightly deviated to the right. During the night he had eighteen fits. These commenced with twitchings of the left angle of the mouth and of the left fingers and were characterised by stertorous breathing, foaming at the mouth, convulsions, chiefly confined to the left side, eyes strongly deviated to the right, and complete unconsciousness, which also continued during the intervals. There was also incontinence of both fæces and urine. The temperature was 101·8°F. On the following day, the fits still persisting, he was ordered forty grains of bromide of potassium and twenty grains of chloral hydrate. He had one fit twenty minutes after the draught, but no more until 10 P.M., when he had another, and again one during the night. For the following ten days the patient remained in a drowsy condition, at one time relapsing into complete unconsciousness, at another being sufficiently sensible to attempt to answer questions when shouted at him, but his speech was never intelligible. His temperature varied between 101° and 103°. His respiration was occasionally rapid and at other times laboured. On one occasion he had an attack of syncope. During the last two days of this period there was complete insensibility of the left conjunctiva and cornea, and no reflex could be obtained. Nothing abnormal had been seen with the ophthalmoscope. On the seventeenth day after admission the patient became much worse; he remained quite unconscious, with laboured respiration, and appeared comatose. The history of the case and the symptoms pointed to a cerebral lesion, probably of a hæmorrhagic nature, and the advisability of trephining naturally suggested itself, but the question was at what point he should be trephined. Through the whole course of his illness one symptom had been constant—viz., complete paralysis of the left arm. As far as one was able to observe, this had never varied. If, then, the symptoms were due to a clot there was a reasonable probability that trephining over the centre for the left arm would bring one somewhere near it. The patient remaining still unconscious, it was decided to operate on the nineteenth day after admission. On the morning of the operation unconsciousness had given way to extreme drowsiness, and the patient could be roused, but with very great difficulty. The conjunctival reflex could be obtained on the right side, but the left cornea was quite insensitive; there was also ptosis of the right eyelid. I made a note also on that morning that left facial paralysis was apparent. Chloroform having been administered as far as was necessary, the site on the skull corresponding to the centre of the left arm was found by careful measurement. The scalp being reflected, a pellet of bone was removed in the usual way. The dura mater was found to be of a dark purplish hue, but otherwise appeared to be healthy. An incision into it was followed by a spurt of dark, venous-looking blood, showing that some considerable tension had been relieved. On examining further this was

found to have escaped from the centre of a large clot, conical in form, its apex pointing towards the centre of the brain; the outer layers were degenerated and buffy. The greater part of this was removed, and the cavity was thoroughly well syringed out, a large tube was inserted, the soft parts were brought together with a few sutures, and the wound was dressed antiseptically. It is worthy of note that before leaving the operation table the left conjunctival reflex was easily obtainable. There was some recurrent hæmorrhage from the interior of the seat of the clot on the night of the operation. On the fifth and sixth days following it the patient had three fits very similar to those at the commencement of his illness, but there was no further recurrence. With these exceptions his recovery was uninterrupted. The return of power in the left arm was slow, but he eventually regained the full use of it, and when discharged he was in every respect well.

ACUTE RHEUMATISM; HYPERPYREXIA; TREATMENT BY COLD BATH; RECOVERY.

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MEDICAL SUPERINTENDENT AND PATHOLOGIST, DUNDEE ROYAL INFIRMARY.

HYPERPYREXIA as a complication of rheumatic fever is fortunately a very rare occurrence and unless treated promptly and vigorously is always fatal. A temperature of 107°F. occurring rapidly and preceded or accompanied by delirium or partial unconsciousness, cessation of pain and perspiration, vomiting with cyanosis, rapid irregular pulse, and sighing respiration is generally regarded as the index of approaching death. It is now universally acknowledged that the excessively high temperature in cases of rheumatic fever, apart from the effects of micro-organisms in the blood, is the real cause of the supervention of dangerous cerebral symptoms, and therefore the attention of the physician must first of all be directed towards reducing the temperature, if possible, before the heart and the tissues generally have been too much damaged by the excessive heat. To Dr. Wilson Fox belongs the credit in this country of first employing external cold as a remedy, and the two successful cases published by him in 1870 were remarkable proofs of what could be done by prompt and vigorous treatment. Dr. Sinclair, whilst physician to the Dundee Royal Infirmary, also recorded a successful case, with a temperature of 107·4°, in 1882. The following is a short history of the case under notice.

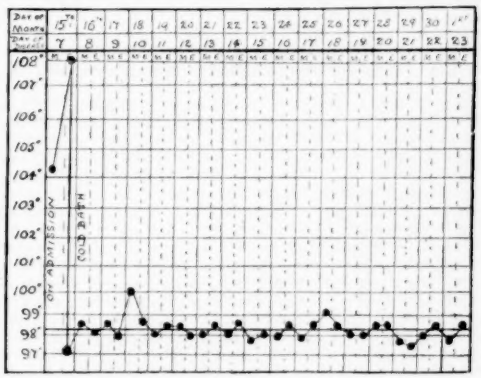
A woman forty-eight years of age was admitted into Ward 9 of the Dundee Royal Infirmary, under the care of Dr. Stalker, on April 15th, 1894, suffering from acute rheumatism. The patient was in this infirmary seven years previously suffering from an attack of the same malady, which ran an ordinary course. The present illness commenced a week before her admission with what appears to have been acute tonsillitis; she had been living by herself and been neglected in consequence. When admitted at 1 P.M. she complained of severe pain in both shoulders, elbows, and wrists, and was unable to move her arms without suffering great pain. Her temperature was 104·2° F., and there was no swelling or redness of the joints. She had an anxious and flushed appearance; the skin was hot and dry, the breath offensive; the respiration was 26, and the pulse 120, soft, and regular. She had a soft, blowing, systolic murmur, heard only in the mitral area, and accentuation of the aortic second sound. There were sudamina over the abdomen and chest. Mentally she was quite clear and cheerful. She was at once ordered the following mixture: fifteen grains of salicylate of soda, ten grains of bicarbonate of potassium, and fifteen minims of spirit of aromatic ammonia, to half an ounce of water, to be taken every four hours, and the painful joints to be wrapped in wool. At 4 P.M. (three hours after admission) the sister reported her temperature to be 108°. I at once went to the patient and found a remarkable change in her condition. She was quite unconscious, laughing and shouting incoherently; face cyanosed; pupils contracted; skin hot and dry; the joints were moved without causing pain; pulse 152 and very small. She was evidently dying, so it was decided to act at once. A bath was prepared at a temperature of 100°; the patient was given one ounce of brandy and at once placed in the bath, which was cooled down to 66° by the addition of cold water and ice.

The following tabular statement is an accurate record of the observations taken at the time:—

Time.	Temp. of bath.	Temp. of patient.	Remarks.
4.15 P.M.	100° F.	108° F.	Patient placed in bath; quite unconscious and wildly delirious; constant vomiting; pulse 184.
4.20 P.M.	96°	108°	Quieter; more brandy poured into mouth; gasping respiration; pulse 150.
4.25 P.M.	90°	106°	Vomiting continued; respiration improved; pulse almost imperceptible; struggling.
4.30 P.M.	66°	102°	Struggling violently and screaming; taken out of bath and removed to bed.
4.35 P.M.	—	97°	A remarkable change, patient shivering and quite sensible; skin cool and showing cutis anserina; only one sound of heart heard; pulse 120, very small; pupils more dilated; not so cyanosed; given more brandy.

The temperature, it will be seen, had dropped 11° in twenty minutes. The delirium entirely passed off, and she felt comfortable. I watched carefully for the return of the temperature, keeping a thermometer in each axilla. In fifteen minutes it began to rise rapidly, until it reached 102°. She was kept constantly sponged with iced water over the chest and abdomen, and ice was applied to the head and base of neck; this had the effect of keeping down the temperature. In a few minutes, however, she developed a maniacal attack, shouting, screaming, and struggling, with marked delusions of fear. This lasted twenty minutes, when she suddenly became quiet and quite sensible. She was given salicylate every two hours. From this time the temperature has remained practically normal; the pain has entirely disappeared, and she expresses herself as feeling quite well.

This case is highly instructive from the fact that not only was the temperature suddenly reduced, and, in consequence, her life saved, but the attack of rheumatic fever was cut short or aborted, and, as will be seen from the chart, since the day of admission her temperature never exceeded 100°, with total disappearance of joint pain and all other rheumatic



symptoms. Of course a good deal of this good result was no doubt due to the salicylate and alkaline treatment, being combined with the local treatment; but the question is, Should attacks of rheumatic fever with a high temperature of 103° or 104° not be treated on the same principle, and an endeavour be made to at once reduce the temperature and cut short the attack? Many cases of acute rheumatism continue this high temperature, ranging from 102° to 104° for weeks, slowly destroying the patient's vitality, and leaving permanent legacies, such as endocarditis, chorea, &c. The cold bath would, of course, only be used in extreme cases. Whatever be the exact cause of the disease, whether excess of uric acid, lactic acid, a bacillus, or an organic poison in the

blood, it is evident that it flourishes with the blood at a high temperature and is not so active in a temperature below 100°; it is also evident that the hyperpyrexia was the cause of the delirium, unconsciousness, and maniacal outburst, from the fact that these symptoms immediately subsided with the reduction of the temperature.

THROMBOSIS AFTER INFLUENZA.

BY JULIUS ALTHAUS, M.D., M.R.C.P. LOND.,
CONSULTING PHYSICIAN TO THE HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S PARK.

IN a former number of THE LANCET[1] Dr. Stevenson has described an interesting case of gangrene of the bowel subsequent to influenza and owing to thrombosis, which was favoured by previously existing arterial disease. He adds: "Thrombosis is, I believe, a fairly frequent sequel of influenza." Such is, indeed, the case. In my book on Influenza I have referred to instances of thrombosis of arteries after that disease, some of them followed by gangrene, described by Leichtenstern, Duchesneau, Highet, Eichhorst, Sydenham, Senator, Gerhardt, Cammerer, and Cross. Since then other cases have been recorded in the German Collective Investigation Report[2] by Professor Litten, who has collected twenty-five cases of venous thrombosis, affecting chiefly the femoral vein, and eight cases of arterial thrombosis, in five of which one or both popliteal arteries were affected, while the femoral, brachial, and cerebral arteries suffered in one case each. Subsequently Leyden[3] has described a highly interesting case of spontaneous thrombosis of the left brachial artery after influenza. The patient was a young woman aged twenty, who was laid up with a feverish attack in January, 1892. After being in bed for a week she recovered and had three weeks subsequently—a sequence by no means uncommon—tonsillitis resulting in an abscess, which healed in a week. Shortly afterwards a pricking pain came on in the left hand, which latter appeared at first pale, but presently became livid, cold, and powerless. The temperature of the affected hand was more than 6°C. lower than that of the sound one; there was slight anæsthesia in parts, and wasting in the muscles of the forearm and hand, with the electric signs of slight "reaction of degeneration." The left radial pulse was absent, and a thrombus about an inch and a half long could be felt in the left brachial artery just above the elbow. Above this thrombus the artery pulsated powerfully, while below it no pulsation was perceptible. The patient had no cardiac or arterial disease, and the affection could therefore only be attributed to the preceding attack of influenza. She gradually regained the use of the hand, which also recovered its normal appearance and temperature, although the left radial artery remained blocked. Litten is inclined to consider spontaneous arterial thrombosis after influenza to be identical with Virchow's "marantic thrombosis," which is seen after typhoid fever and other exhausting diseases; but Leyden has given a more satisfactory explanation of the occurrence. He does not believe that a short attack of influenza leads to actual marasmus, and in the majority of cases of arterial thrombosis which have been described there has been no previous disease of either the heart or the arteries. It therefore appears more probable that the coagulation of blood in the living artery is rather owing to the breaking-up of the white blood-cells, which become superabundantly developed in the blood from the very beginning of the feverish attack and even after the crisis. After a time these cells break up into fragments, forming the so-called "blood plates." Such blood plates may, by adhering in masses to certain points of the arterial wall, cause coagulation in such a spot and thus lead to the formation of a thrombus in the vessel. This view of the matter seems to be confirmed by Heintz's[4] observations on thrombosis after arsenical poisoning. He has shown that in such cases arterial as well as venous thrombosis originates from the breaking-up of the white blood cells and their transformation into "blood plates." Similar occurrences, moreover, have been noticed after poisoning with phosphorus and chlorate of potash, so that mineral poisons as well as toxines appear to be able to give rise to spontaneous arterial thrombosis in the way just described and without the intervention of marasmus.

Harley-street, W.

[1] THE LANCET, Jan. 21st, 1893.
[2] Die Influenza-Epidemie, 1889-90, &c. Herausgegeben von Dr. E. Leyden und Dr. S. Guttmann. P. 85. Wiesbaden, 1892.
[3] Deutsche Medicin. Wochenschrift, Nov. 10th, 1892.
[4] Virchow's Archiv, vol. cxxvi., p. 496.

THE NOTES OF A CASE OF MALIGNANT STRICTURE OF THE ŒSOPHAGUS TREATED BY INTUBATION.

BY ALFRED BERRILL, M.R.C.S. ENG., L.R.C.P. LOND.

IN the early part of November, 1892, I saw a man who complained of hoarseness lasting since September of the same year. During the whole of 1891 and the early part of 1892 he had been laid up with subacute rheumatism and pneumonia. He had a very old history of syphilis. In August, 1892, he experienced a little difficulty in swallowing for the first time. In September he became hoarse. But he had gained in weight since his long illness, and looked hearty and well. On Nov. 4th I saw him in consultation with Mr. Hovell; it was then found that his right vocal cord was motionless, that a good-sized œsophageal bougie could not be passed beyond a point eight inches from the teeth, and that his right supra-clavicular glands were enlarged. Ultimately a No. 6 Mackenzie's bougie was passed through the stricture. It was concluded that he had malignant stricture of the œsophagus. On Dec. 2nd he had lost 6 lb. in weight in three weeks; the swallowing was no worse, but the glandular swelling was larger. Early in January, 1893, the swallowing was much worse and the patient weaker; one of Mr. Symonds' short tubes (No. 10) was passed and left in the œsophagus, and the patient was at once able to drink some milk. The tube was changed for a new one every ten to fourteen days; the size that answered best was a No. 12 six-inch tube with double silk each side. The silk from each side of the tube was tied together just outside the mouth, as the stricture was so high up and the patient found he could not tolerate any knots in the pharynx or touching the back part of the tongue. A No. 15 short tube was tried, but this did not answer owing to pressure on the cricoid cartilage. His diet consisted of warm beef-tea, soup, and milk, with the yolk of two or three eggs a day; all the food was carefully strained through muslin. On April 10th Mr. Symonds kindly saw him with me, and advised that the tube should be left out, but that a No. 12 (urethral) bougie should be passed each day for two or three days and then on alternate days, or at longer periods if possible, so long as the swallowing remained good, or provided the bougie could be passed easily. The patient found he could swallow a teacupful of pounded meat in gravy if he carefully "washed each mouthful down" with water. The plan of leaving the tube out answered well for twelve days, but at the end of that time it was found impossible to introduce the tube in the ordinary way with the whalebone and gum elastic introducer. The following plan was then tried with success: a No. 6 gum elastic catheter (no small bougie was at hand) was passed just through the stricture, and an open-ended No. 12 short tube was passed over the catheter, using that as a guide. The tube was then left in for three days only, whereupon the patient was able to swallow without the tube with comfort for another twelve days, when the tube was reintroduced for three more days. This treatment was continued for seven months, until the patient's death. In July it was found that his liver was enlarging rapidly, and this was accompanied with troublesome diarrhœa; there were no pulmonary symptoms, and the cord remained paralysed. He died in August, 1893, twelve months after the first symptoms, from exhaustion. No post-mortem examination was allowed.

It was a great relief to the patient and those around him to be able to adopt some measure that enabled him to swallow with comparative comfort. A few days before the first tube was introduced in January he had the greatest difficulty in swallowing anything, and, in fact, for one day he was quite unable to swallow at all. These cases are always most trying, especially in general practice, and having lately had a case of this terrible disease where Mr. Symonds' tube was not used, I can quite appreciate how

much more comfortable the last days of a patient must be where this treatment can be carried out with success. It appears to me that if the tube can be tolerated the treatment is almost better than running the serious risks of gastrostomy.

South Woodford Essex.

BELL'S PARALYSIS OCCURRING WITH HERPES ZOSTER.

BY H. A. SPENCER, M.R.C.S.ENG., L.R.C.P.LOND.

READING with interest Dr. Naoroji Darabseth's paper upon the above unusual combination, published in THE LANCET of May 5th last, I was led to look up some notes upon a similar case which came under my care in Cape Town a few months ago. The patient was a rather stout woman of about seventy years of age, who had enjoyed good health all her life and who denied ever having had rheumatism before the present attack commenced, although the knotty condition of the fingers testified to old rheumatoid changes. Some weeks before I first saw her, rheumatism, apparently sub-acute, had attacked the right knee-joint; it lasted two or three weeks, and as it passed off from the knee a similar condition appeared in the right shoulder. Neuralgia of the right side of the neck and face followed, and two days before my visit an eruption had appeared in this region, accompanied by much burning and stinging, which, with the neuralgic pain, prevented the patient getting sleep. The eruption was typically herpetic and consisted of papules, mostly of large size, which followed the distribution of the superficial cervical plexus down on to the point of the shoulder, radiating across the neck and running into the hair above and behind the ear. There was no headache; hearing and sight were normal, and examination of the ear showed a healthy tympanum and a clear meatus. The pain was very severe behind the ear. On the following day the patient complained of a severe pain immediately in front of the ear, where there were also some tenderness and slight swelling, and a few papules, four or five in number, had appeared in front of the ear, running horizontally across the cheek. During the next three or four days the eruption became vesicular, and where it had encroached upon the hair it became pustular. The spots were large, mostly being as large as split peas. About five days from my first visit I noticed a decided drop in the angle of the mouth on the right side, and on the following day the lower eyelid had dropped and other symptoms of Bell's paralysis were marked. The patient was unable to whistle or to close the eye, and there was a marked absence of the lines of the forehead on the right side. The tongue was protruded straight; there was no falling of the soft palate or deviation of the uvula; taste was normal; there was no tinnitus or other symptom connected with the hearing. The conjunctiva became œdematous on this side, projecting even between the eyelids, but there was at no time any conjunctivitis. After some weeks' treatment, during which frequent bathing with hot water gave great relief to the pain in the neck and face, all the symptoms improved; the vesicles dried up and disappeared, leaving only some staining; the pustules left small pits and depressions, and the paralysis of the face also improved, as shown by returning ability to close the right eye. The patient was taught to apply the faradaic current to her face, and the muscles were kneaded and rubbed every day. Bromides and iodides were given for some time. Three or four months later the paralysis had entirely passed off.

The neuritis here was evidently of rheumatic origin, but the case seemed to me to be specially interesting as supporting the view that the condition of the nerves in herpes is one of inflammatory exudation within the nerve sheath; that this exudation by compression interferes with the trophic function of the nerve; and that the extension of this process to the facial nerve in its rigid tube, the aqueductus Fallopii, causes greater compression, even to strangulation, of the motor fibres and paralysis of the muscles supplied by the nerve.

Warrior-square, St. Leonards-on-Sea.

LITERARY INTELLIGENCE. — Messrs. Baillière, Tindall, & Cox announce the immediate issue of a brochure on "Gout" by Dr. Mortimer Granville; a fourth edition of Dr. Thorowgood's "Bronchial Asthma"; and a second edition of Dr. Ball's "Diseases of the Nose and Pharynx."

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

GREAT NORTHERN CENTRAL HOSPITAL.

A CASE OF CIRCUMSCRIBED SUPPURATIVE MENINGITIS FOLLOWING MIDDLE-EAR SUPPURATION; TREPHINING; CURE.

(Under the care of Mr. W. R. H. STEWART.)

CASES of intra-cranial mischief of severity secondary to otitis media are of the greatest interest to the surgeon of the present day, for there are few departments of his art in which greater advance has been made, and few in which he can be said more definitely to save life. The trend of cases of suppuration within the skull is so invariably to a fatal ending, if no operation is undertaken, that it is desirable that every student should make himself acquainted with the symptoms which point to the presence and situation of pus and the treatment which must be carried out. Mr. Stewart's case is instructive and unusual, suppurative meningitis being rarely localised or permitting of more than relief by any operation. Several cases of intra-cranial abscess in which the pus was met with directly after incision of the dura mater are recorded, and in such communication with an abscess cavity has been generally demonstrated after evacuation of the pus and washing out of the space in which it was lying. For the notes of the case we are indebted to the house surgeon, Mr. Cooper.

A boy twelve years of age was admitted to the Great Northern Central Hospital on April 15th, 1893. The mother stated that there was an offensive discharge from the right ear a month ago; that after continuing for some days the discharge suddenly ceased; and that for two whole days the boy was unconscious. On admission the boy looked pale and ill and seemed indifferent to everything, but was morose and irritable on an attempt being made to rouse him. There was no discharge from the ear, and no pain or tenderness behind the ear. The head was slightly retracted. The pupils reacted to light and accommodation; no optic neuritis was found on ophthalmoscopic examination. The temperature was 99° F., the pulse 120. Constipation was present. The patient became gradually worse, and on April 19th was in the following condition: "The head is greatly retracted, the occiput almost touching the back; it is rigidly fixed in this position, and the slightest attempt at movement causes the boy to scream out. He lies in an apathetic state and is with difficulty made to swallow nourishment. Pupils are dilated but equal; there is no optic neuritis. Knee-jerk and ankle-clonus are present. Temperature 99°." As the patient was getting so rapidly worse Mr. Stewart decided to explore the cerebellar region without further delay. Under chloroform a semicircular flap of all the tissues was thrown forward, a three-quarter inch trephine applied at a spot two inches behind the centre of the bony meatus and one inch below Reid's base-line, and a crown of bone removed. There was no protrusion of the membranes. An incision was then made in the dura mater, and from one to two teaspoonfuls of sweet pus escaped. The cavity was gently washed out with a warm boric acid solution, a drainage-tube inserted, and the wound closed. A fresh incision was then made behind the auricle, and the mastoid antrum opened with a gouge; it was found filled with very offensive caseous pus; the walls were bare and partially carious. The pus was freely washed away and the carious bone well scraped with a sharp spoon, a drainage-tube inserted, and the wound dressed with blue gauze and wool. The patient remained under the influence of the anæsthetic for some hours, but was not sick. The pulse was 130; the temperature in the evening was 100°. On April 20th the wound had to be redressed as the dressings were soaked through. The mastoid antrum was well syringed; it was quite sweet. There was much less rigidity about the retraction, but he still could not bear the head to be moved. The temperature

was 100·6°, but came down to 99·6° in the evening; the pulse was regular; the bowels were still constipated.

April 21st.—There is a decided improvement in the patient; he has passed a good night, sleeping quietly all through. Retraction markedly less. Not nearly so irritable when moved. Looks brighter and shows some signs of intelligence. Takes nourishment well. Bowels still constipated. Temperature and pulse normal.

May 14th.—The patient has made a steady and uninterrupted recovery, and both wounds are soundly healed. He has quite lost his dull, apathetic appearance, and is fairly intelligent.

25th.—The patient left for a convalescent home.

Remarks by Mr. STEWART.—The case is, I think, interesting from two points—first, it shows that a circumscribed suppurative meningitis may be quickly recovered from if operated on in time; and, secondly, many of the symptoms of a suppurative meningitis were wanting. The retraction of the head pointed markedly to irritation in the cerebellar region, and the rapid pulse to meningitis, but the constipation and drowsiness are symptoms common to cerebral abscess, cerebellar abscess, and meningitis. The temperature was but slightly raised above normal. The respiration was not increased. There was no rigor reported and no paralysis or twitchings &c.

MELBOURNE HOSPITAL.

CASES OF DUCT CANCER OR VILLOUS CARCINOMA OF THE BREAST.

(Under the care of Dr. MOORE.)

THIS variety of tumour of the breast is one which has been described under a great many names, but the number of cases published in this country is not numerous. Mr. Bowlby, in a paper which appeared in the columns of THE LANCET,[1] only collected twenty cases, some of which had been under his observation. The growth occurred in an aged patient, and caused so little discomfort that it was allowed to remain for five years, and gave other proofs of its low malignancy in the freedom of the skin, its mobility, and the absence of glandular enlargement. The histology of this variety of carcinoma has been well described and illustrated by Mr. H. B. Robinson in his lectures on Certain Diseases of the Breast, which we published in THE LANCET[2] soon after their delivery at the Royal College of Surgeons of England.

A married woman aged seventy was admitted into the Melbourne Hospital on Sept. 6th, 1893, suffering from a tumour of the left breast. She stated that five years previously she first noticed a small lump near the middle of the breast; it was then about the size of a pea and it had gradually increased in size ever since. Two years ago she noticed the nipple beginning to flatten out. The patient had always been a healthy woman. She had had ten children, the first eight of whom she nursed; with the ninth, nearly thirty years ago, the left breast gathered and, after poulticing, a large abscess burst near the nipple and she was in consequence unable to suckle that child; neither did she nurse the next child, as the breast again threatened to give trouble. There was no family history of cancer. On examination there was noticed a large tumour of the left breast, the enlargement being most noticeable in the lower and outer sections. Close to the nipple were several smooth rounded eminences of a purplish colour. These eminences were distinctly fluctuating, and this, combined with their purplish colour, gave the impression of cysts with hæmorrhage into them. The outer part of the breast was harder and firmer and did not fluctuate. The nipple was flattened out so as to have almost disappeared, but was not retracted. The skin was not adherent, and there appeared to be fluid immediately underneath it all about the nipple area. The tumour was freely movable on the chest. No glandular enlargement in the axilla could be detected. The patient was fairly stout and looked in good general health. No other diseased condition was noticed. On Sept. 9th the whole breast was removed, but the axilla was not opened. The wound healed throughout by first intention, and the patient was discharged eleven days after the operation.

The tumour was examined by Dr. C. H. Mollison, assistant pathologist to the hospital, and he has furnished the following account of its structure and character. "On making a section of the specimen a little to one side of the nipple the knife opened a series of cysts, into each of which a mass of new growth projected. The growth, which formed a central mass in the midst of the cysts, was composed of several distinct divisions meeting in a common centre. Each of these divisions formed a little boss or protuberance projecting into a cyst cavity. The measurements of the solid portion of the tumour were as follows: from the surface deeply one and three-quarter inches, transversely two inches, and from above downwards one and three-quarter inches. The substance of the growth was fairly firm, though portions broke away easily on manipulation. On section it had a spongy appearance, and numerous openings of little ducts as well as minute cyst cavities could be seen. The bosses, which projected into the cyst, were distinctly papillose, those in the smaller cysts exactly resembling both in form and colour the surface of a cauliflower; in the larger cysts they were somewhat smoother, and the colour was pinkish from staining with extravasated blood. The cysts into which the growths projected were

Engraving (from a photograph) showing main growth and cyst. A, Fat. B, Cyst. C, Papillary growth. D, Cyst. (Three other cysts were shown through a separate incision.)

eight in number, and there were evidences of small cysts having broken into the larger ones. The cysts varied greatly in size, the largest measuring two and a half inches by two inches, and the smallest being about the size of a small hazel-nut. They were lined by a distinct tough membrane, which in the larger ones was adherent to the skin. The cyst contents varied: the large cavities contained a thick, reddish fluid consisting of broken-down blood and growth and a large quantity of cholesterine; the smaller contained a whitish fluid unstained by hæmorrhage, with some soft sebaceous-looking matter and a smaller quantity of cholesterine. The nipple was not retracted; it was atrophied, and was situated immediately over the largest cyst. It presented a small blind pouch, a quarter of an inch deep, which was only separated from the cyst cavity by the lining membrane of the latter. No communication could be made out between this little pouch and the cyst or with any other duct. The skin was nowhere puckered at all. The tumour as a whole was rounded and well defined, and measured four inches by two

[1] THE LANCET, June 10th, 1893.
[2] THE LANCET, June 9th, 1892.

and a half inches. It was embedded in fat, and there was no infiltration outside the cyst cavities. It occupied the whole of the gland. The growth had evidently begun on the ducts, which had become distended to form cysts of various sizes, with sprouts of tumour tissue projecting from their walls. Microscopically the section varied; in parts it was composed of ducts supported by a delicate connective tissue; the ducts were lined with several layers of cubical epithelial cells, which in many were growing to form little papillary sproutings in the lumen of the duct; in those parts the epithelium had burst outwards into the connective tissue and, growing freely, had produced all the appearances of an ordinary primary carcinoma."

Remarks by Dr. MOORE.—So far as I know, this is the first case of its kind met with at the Melbourne Hospital. I at first thought that the tumour was a sarcoma with hæmorrhagic cystic developments; but the advanced age of the patient, the long duration of the disease, and the slight impairment of health were all against that diagnosis. On further investigation the case was found to agree closely with the cases of duct cancer or villous carcinoma of the breast recorded by Mr. Bowlby.[3] The two chief peculiarities of this particular case are the absence of blood-stained discharge from the nipple, which, however, has been noted in other cases, and the large size of some of the cysts. These two features are probably connected; had the fluid escaped by the nipple the cystic development would probably have been less marked. It also seems likely that the absence of the blood-stained discharge was due to the old abscess of the breast, which might have destroyed the communication between the nipple and the ducts. This is especially likely, seeing that the abscess broke near the nipple, and that the patient was unable to suckle with that breast subsequently.

Medical Societies.

HARVEIAN SOCIETY OF LONDON.

Syphilitic Laryngitis, with Consolidation of Right Lung.—Pigmentation of Cicatrix after Ovariotomy.—Unintentional Poisoning by Strychnia.—Adenoma of Body of Uterus.

A MEETING of this society was held on Thursday, May 17th, at 8.30 P.M., the President, Mr. GEORGE EASTES, being in the chair.

Mr. G. C. WILKIN exhibited a married woman aged thirty-eight, suffering from syphilitic laryngitis, with consolidation of the apex of the right lung. The patient came under Mr. Wilkin's care at the London Throat Hospital on Feb. 6th last. There was no family history of phthisis; she had had two miscarriages, and no children. Last August she had an attack described as "erysipelas of head and face" The throat then began to be troublesome. There was swelling of the epiglottis and of the false vocal cords, the latter meeting completely in the anterior half. There was dulness of the upper lobe of the right lung, in front and behind, with increased vocal resonance and pectoriloquy above the spine of the right scapula. Three examinations of the sputum were made, and tubercle bacilli were never found. The laryngeal and lung troubles gradually subsided, and entirely cleared up under a mixture containing potassium iodide and liq. hydrarg. perchlor.—The PRESIDENT remarked upon the value of syrup of codeia for the cough, which was so troublesome in these cases and in some cases of bronchitis. He also quoted Dr. Sidney Phillips, who had brought forward a case in which syphilis was associated with high temperature, which fell directly iodide and mercury were exhibited.—Dr. ILLINGWORTH submitted and argued that, in view of the chemical change into biniodide, which is at once seen on the addition of iodide of potassium to solutions of the perchloride of mercury, it was not scientifically accurate to describe, as was constantly done, cures as being effected with "perchloride and iodide." They should be described as being effected with "solutions of the biniodide" in greater or less excess of potassic iodide. Furthermore, Dr. Illingworth pointed out that the same rapid and satisfactory curative action could be seen in all the other specific febrile disorders, just as in this particular one, syphilis, by such solutions of the biniodide.

Dr. BOXALL showed a case of Pigmentation of Cicatrix after Ovariotomy performed during pregnancy. The patient was of fairly dark complexion and aged twenty-five years. She came under observation last summer with a swelling in the lower part of the abdomen on the right side, reaching one inch above the level of the umbilicus. It had gradually increased for the last nine months, had shifted its position from time to time, and had recently become painful. Per vaginam, it appeared that the uterus was enlarged to the size of a four months gestation. The last menstrual period was two months ago. There was no evidence of pregnancy in the breasts. On opening the abdomen by a median incision the tumour was found to be an ovarian cyst on the right side and was removed. This was done just in the middle of pregnancy. The patient left the hospital three weeks after the operation with no appreciable pigmentation of the scar, but in fourteen days it became deeply pigmented, almost black. The pregnancy went on to term. The pigmentation had been fading since, but was still quite distinct.—Mr. ALBAN DORAN wished to know Dr. Boxall's opinion about pigmentation in the middle line. It was often associated with pregnancy, but it was sometimes seen in sterile women, and even in men. Among the patients in a lying-in hospital at Bordeaux Mr. Doran had noted that the line often extended above the umbilicus. He asked if Dr. Boxall had ever observed pigmentation in abdominal cicatrices situated elsewhere than along the linea alba. He had not found that pregnancy after abdominal section specially predisposed the subject to pigmentary deposit in the cicatrix. In January, 1892, he removed the appendages, much diseased from chronic inflammation, in a case of rapidly growing fibroid. The patient was a fair-haired sterile woman, aged thirty-nine. Within twelve months the skin along the abdominal scar became deeply pigmented, and remained so to this day.—In reply to Dr. Illingworth's suggestion that the pigmentation resulted from severe inflammation, Dr. BOXALL said that the wound healed by first intention. In reply to Mr. Doran, he pointed out that in pregnant women of dark complexion there was often pigment deposited in the middle line of the abdomen even as high as the ensiform cartilage, the line being divided at the umbilicus and joining again above it. This pigmentation also occurred apart from pregnancy, but he could not say whether it took place in connexion with the growth of fibroids. In this case the incision was made at the period of pregnancy, when pigmentary deposit was most active, and the scar became pigmented only some weeks later. Dr. Boxall thought it possible that any scar in the abdominal wall might become pigmented if pregnancy subsequently occurred, for he had seen the striæ produced at one pregnancy by the stretching of the skin become pigmented during a subsequent pregnancy.

The PRESIDENT related particulars of a case of Unintentional Poisoning by Strychnia. Liq. strychniæ had been prescribed by a medical man in a mixture combined with bicarbonate of soda. The soluble sulphate of strychnia had been thereby decomposed and replaced by the insoluble carbonate, which became deposited as a sediment. The bottle had not been shaken when the first eleven doses were taken, so that the last dose of the mixture contained far more than the normal dose of strychnia. After swallowing this the patient was quickly seized with severe tetanic spasms. Ipecacuanha wine with hot water was given and vomiting thereby produced. The stomach was then washed out with warm water. The patient recovered in about half an hour.

Dr. BOXALL related a case of Adenoma of the Body of the Uterus. The patient was a widow fifty-nine years of age. She had suffered from irregular uterine hæmorrhage, with a tumour in the lower part of the abdomen, for five or six years. Her general health had not suffered. Before coming under Dr. Boxall's care she had had full doses of ergot, which had not arrested the hæmorrhage. On examination the tumour gave the impression of a uterine fibroid. This was confirmed by examination per vaginam. The mass was obviously an enlargement of the body of the uterus and was freely mobile. The cervix was healthy. The loss increasing, the cervix was dilated under an anæsthetic. The cavity of the uterus was found to be full of material—which bled freely when touched—springing from the posterior wall and fundus, and of the consistency of brain matter. This was rapidly removed by curetting. The débris, deprived of blood, weighed 2 lb. 10 oz. The loss ceased; there was a slight discharge for fourteen

[3] St. Bartholomew's Hospital Reports, 1892, and THE LANCET, June 10th, 1893.

days, and none at all for the last six weeks. A section of the mass showed typical tubular glands lined by a single layer of columnar epithelium. The specimen was exhibited.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases.

A CLINICAL MEETING of this society was held on June 1st, the President, Dr. DONALD HOOD, being in the chair.

Dr. SCANES SPICER showed a case illustrating the Radical Cure of Fetid Suppuration of the Nose by free opening, curettement, and drainage of the maxillary antrum. Some polypi were removed in July, 1890, the diagnosis of antral disease being made at the same time, and the antrum was opened through the alveolar ridge on Dec. 27th, 1890. In May, 1892, it was found necessary to open and curette the antrum through the canine fossa, and in April, 1893, the opening last made was opened up, the cavity again curetted, and a counter opening again made into the inferior meatus. The discharge had entirely ceased for one year.—Mr. LAKE referred to a similar procedure adopted abroad.—Dr. MCADAM ECCLES showed a case of Probable Deposit of Urate of Soda in the Scrotum. The patient had suffered with previous attacks of gout and had tophi in the ears. The disease of the scrotum had been existent and progressive for three and a half months, and there were two ulcers with undermined edges and firm, hard, fixed, insensitive bases. The patient had been treated without anti-syphilitic remedies, but would be put on them after having been exhibited.—Dr. CLEMOW referred to a similar case cured by anti-syphilitic remedies.—Messrs. LLOYD, BIDWELL, and ATKINSON took part in the discussion.—Dr. ECCLES also showed two cases of Subcutaneous Nodules in Rheumatic Subjects.—Mr. BIDWELL showed a man exhibited before the society in November last with a large Syphilitic Node of the Humerus. Since then he had had a spontaneous fracture, which was explored by free incision. No evidence of sarcoma was found. The wound was cleaned out, and the subsequent course was uninterrupted recovery.—Mr. BIDWELL also showed a girl suffering with Ulceration over the Ankles due to Congenital Syphilis.—Dr. ABRAHAM and Mr. LLOYD made some remarks on these cases.—Dr. MORGAN DOCKRELL showed a case of Rodent Ulcer of twenty years' duration, markedly improved by resorcin applied externally.—Dr. ABRAHAM and Mr. BIDWELL both alluded to cases cured by simple ointment.—Dr. DOCKRELL also showed a case of Mycosis Fungoides. The disease had existed eight years, but was now showing marked improvement under the internal and external exhibition of resorcin.—Mr. T. R. ATKINSON read the notes of a case of Multiple Lipomata.—Dr. ABRAHAM showed some cases of Skin Disease.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Exhibits.—Myomatous Uterus.—Etiology, Prevention, and Treatment of Puerperal Septicæmia.

A MEETING of this Section was held on May 18th, Mr. HORNE, President, being in the chair.

Mr. W. J. THOMPSON exhibited an Anencephaloid Fœtus.

Dr. W. J. SMYLY showed a Myomatous Uterus which he had removed from a primipara aged forty in the Rotunda Hospital. Upon abdominal examination the uterus was found to be infested with myomatous nodules, the fœtus presenting in the second position, with the head freely movable above the pelvic brim. Per vaginam, a tumour as large as a fœtal head was found occupying Douglas's pouch and encroaching upon the conjugate diameter to such an extent as to render the passage of the child impossible. The tumour was firmly fixed, and the presenting part could not be reached by the examining finger. Abdominal section was performed on Friday, May 4th, and the uterus drawn out and opened. The fœtus extracted began to cry almost immediately and is still alive and well. The removal of the tumour was difficult, owing to firm adhesions and to its extensive extra-peritoneal development, necessitating careful enucleation. An elastic ligature was placed around the cervix, below the tumour, and the latter, with the uterus, removed. The stump, too short to be treated extra-peritoneally, was extirpated per vaginam, the broad ligament having been secured by clamps. A large mass of tissue was, however, found outside the clamp on the left side, and, another clamp having been placed outside this, it was removed; upon examination it was found to be a second uterus, with a normal non-pregnant cervix, which easily admitted a uterine sound. The patient developed a thrombosis in the short saphenous vein of her left leg, but was progressing favourably.—Dr. ALFRED SMITH stated that the patient originally came to him complaining of great pain and cessation of menstruation. The signs of pregnancy were so badly marked that it was only when abdominal section had been performed with a view to removing the uterus, and the uterus grasped and ballottement obtained, that the diagnosis of pregnancy was established. The wound in the abdominal wall was immediately stitched up, and the case allowed to go on to full term. Some severe pain a few hours later seemed to threaten a miscarriage, but the pain was allayed by morphia, and the patient got quite well.—Dr. PUREFOY related the history of a somewhat similar case which had come under his care.—Dr. SMYLY also showed a Uterus and Double Pyosalpinx removed per vaginam.

Dr. THOMAS MORE MADDEN read a paper on the Etiology, Prevention, and Treatment of Puerperal Septicæmia. Under the heading "puerperal fever, or septicæmia" he includes all forms of infectious pyrexial disease directly consequent on parturition, whether peculiar to the puerperal condition or then assuming a specific character. These, however, modified in their prevailing type and predominant symptoms by the special circumstances of the patient, or by the source and intensity of the septicæmic poisoning in each instance, are all primarily ascribable to the invasion and development of pathogenic micro-organisms, in some cases identical with the streptococci of erysipelas or other infective diseases. In one or other of these pathological microbes must be recognised the starting-point of what was formerly termed autogenetic puerperal fever—i.e. that connected with putrefactive changes in retained placental or membranous débris, clots, or discharges to which such germs have gained access, as well as of those very frequent cases in which parturient lacerations of the cervix uteri, vagina, or perineum furnish the channels for septic infection. Moreover, in bacteriological causes we find the most rational explanation both of the occasional epidemic diffusion and of the local prevalence of septicæmia owing to the air-borne germs, of which lying-in women have so often and so fatally proved their special susceptibility. These germs may thus be conveyed, by other channels than those just referred to, into the system of the puerperal patient—as, for instance, from exposure to sewage gas or foul air in insanitary dwellings or from an atmosphere specifically contaminated by puerperal exhalations, as in lying-in hospitals. The wards of the latter, therefore, should never be occupied in unbroken succession or without a sufficient interval and thorough disinfection between each new batch of obstetric cases, nor, moreover, without provision for fully 2500 cubic feet of space for each patient. The prophylaxis of puerperal septicæmia largely depends on the sanitation and maintenance of the constitutional condition of our obstetric clients by judicious hygienic and dietetic measures before delivery, supplemented, when not specially contra-indicated, by ferruginous tonics throughout the latter months of pregnancy. Secondly, the vital importance of asepsis in everything relating to the patient, her surroundings, and her attendants during delivery and the puerperium cannot be too strongly insisted on. Thirdly, on the completion of labour, and, above all, more especially whenever that has been tedious, instrumental, difficult, or complicated, the uterine cavity as well as the vagina should be thoroughly flushed out with hot boric or carbolic solution, or peroxide of hydrogen. Dr. More Madden also discussed the treatment at length.—Mr. E. HASTINGS TWEEDY, Dr. A. SMITH, Mr. DOYLE, and Dr. SMYLY having spoken, Dr. MORE MADDEN briefly replied.

SECTION OF ANATOMY AND PHYSIOLOGY.

Exhibits.—Collective Investigation Reports.—Complete Transposition of the Viscera.—Anatomy of the Ear Muscles.—Single and Double Monstrosities.

A meeting of this Section was held on May 25th, Professor FRASER, president, being in the chair.

Dr. BIRMINGHAM exhibited (1) a specimen of Horseshoe

Kidney, in which the two kidneys lay over the common iliac arteries and extended into the true pelvis, the isthmus lying on the front of the sacrum; and (2) a specimen in which the Superior Longitudinal Sinus divided into Two one and three-quarter inches above the internal occipital protuberance, the straight sinus divided in a similar fashion, and the two branches of each ran out and united nearly two inches from the protuberance to form the lateral sinuses.

The reports of the Collective Investigation Committee from the Anatomical Departments of Trinity College and the Catholic University were read, and Dr. CUNNINGHAM proposed a vote of thanks to the several gentlemen who had so laboriously and carefully investigated the different subjects.—Dr. BIRMINGHAM had much pleasure in seconding Dr. Cunningham's proposal, and added a warm word of thanks to the investigators.—The PRESIDENT put the vote from the chair, and it was carried by acclamation.

Mr. FRAZER made a communication on the subject of Complete Transpositions of the Viscera, exhibiting a specimen which he had obtained in the dissecting-room during the course of the winter session. The abnormal condition occurred in a female subject about forty-five years of age, of low stature, height only 4 ft. 2 in. No other details could be obtained. He pointed out that the condition must be a very rare one, that he had now an experience extending over at least 1400 bodies, and that this was the first example he had met with. The transposition was complete, not only in regard to the viscera, but also to the bloodvessels and to the thoracic duct. In respect to its cause, he considered the subject to have been one of twins from a single egg, in support of which opinion he showed a double monstrosity where dichotomy was complete except in the thoracic region (thoracopagus), and in which the left of the two fœtuses had transposition of the viscera—a fact already noticed by Förster[1]—and that the same cause had been suggested by Mr. Morrant Baker to Mr. Bland Sutton, as stated in his work on "Evolution and Disease."[2]—Dr. PARSONS said that he had seen a patient in one of the Vienna clinics in whom the liver, heart, and spleen were transposed. She was a rather well-developed woman. When he saw her she was suffering from an attack of bronchitis.

Dr. BIRMINGHAM read a preliminary note on the Anatomy of the Ear Muscles, in the investigation of which he is at present engaged.

Mr. FRAZER also made a communication on various forms of Single and Double Monstrosities, especially on anencephalic and amyelic nervous systems.

Reviews and Notices of Books.

An International System of Electro-therapeutics. By HORATIO R. BIGELOW, M.D. Philadelphia: The F. A. Davis Company. London: F. J. Rebman.[3] 1894.

[SECOND NOTICE.]

THE article devoted to Galvanism commences with a historical sketch of much interest and some originality. Then follow the questions of electrical measurements, galvanometers, rheostats, &c., with a number of illustrations. There is one of perhaps greater interest than the others, showing the author's own apparatus, not yet "on the market," but "which, laying aside an inventor's pride," he "can frankly say, is encumbered with fewer disadvantages than any apparatus of its kind." When it appears "on the market" this instrument will, no doubt, receive the attention of the independent critic.

The "Vetter" current adapter is illustrated and described. It seems an ingenious and useful substitute for the "wall-plug" in utilising electric light circuits. For continuous current the "current-controller" and milliampère-meter are also, of course, necessary. The caution never to use the instrument without seeing to the safety-fuse is of more than doubtful value, inasmuch as it may induce the reader to put his trust in safety-fuses and be dangerously disappointed. It has already been pointed out in THE LANCET: (1) that "in electric lighting a fuse that acts within 10 per cent. of the normal current is considered safe and satisfactory"; and (2) that "it is the practice to insert a fuse whose breaking point is from 50 to 100 per cent. above the normal current." To say that "500 milliampères is the greatest amount of current that the 16 candle power lamp is able to furnish, as a heavier current would break the filament in the lamp and thus stop the current," is also much too confiding a statement. There does not seem as yet to have been a better protector suggested than the magnetic cut-out described some time ago in THE LANCET; it may be well to remember, however, that a certain "hang," or delay, between the rise of current and the break of circuit seems inseparable from the action of all such instruments.

The article on Cataphoresis would be more correctly described as an essay on cataphoric medication. Denoting, as it does, a transfer of fluids in the direction of the current, cataphoresis is a necessary accompaniment of all continuous current applications to such a conductor as the human body; and, quite apart from the introduction of medicinal substances by its means, this action is in itself a most important factor in the therapeutic effects of such currents. Sir W. B. Richardson's experiments on "voltaic narcotism" and the ensuing controversy of thirty years ago are here recalled. Much has been learnt on this subject since then. The paper on Diseases of the Lungs and Heart covers some very doubtful ground, and its author shows a judicious absence of enthusiasm. It may eventually come to be accepted that general electrisation rather than any attempt at these localised methods will prove to be the best means of influencing the organs in question. Of the localised methods, perhaps one of the most hopeful would be, as the author suggests, to treat tachycardia by the application of a continuous current to the pneumogastric; to recommend, however, that this nerve be reached by "applying one of the electrodes to the external border of the sterno-mastoid a little below its middle" does not commend itself as a particularly happy piece of applied anatomy. The pale-grey pellet of asthmatic expectoration is here encountered as the "sputa chunk." With the letter G commence "Diseases of the Uterus," and no less than nine essays by different authors are devoted to this and kindred subjects. The author gives a judicious caution, in the light of Apostoli's experiments, not to expect too much from the microbicidal action of the galvanic current *per se* in the cavity of the uterus, unless it be used in a case requiring, say, not less than 100 to 150 milliampères. Fig. 4 is a plate that has already done duty in another work. The electrical treatment of "fibroid tumours of the uterus" is one of the very best in the book. Its authors are "assistants at the clinic of Dr. Apostoli."

The next paper is a discussion on the methods of Apostoli and others. The author gives sixty cases of uterine fibroids operated on by himself, and of these fourteen are classed as "complete cure"; it appears, however, that of these the tumour "absolutely disappeared" in only five. If this result be accepted it is not difficult to agree with the authors of the previous paper that "well authenticated cases of the total disappearance of fibroid-myoides are no longer rare." The author describes a gelatine-graphite electrode of his own invention, which he prefers to all others as the abdominal electrode in these operations. The drawings of an improved "sinusoidal apparatus" and an "electrograph" both designed by the author, as well as some studies of curve tracings, are interesting features of this essay. It concludes with an account of d'Arsonval's high frequency currents, in which the sensible and satisfactory plan is followed of reproducing between inverted commas an author's own words. D'Arsonval's contention that currents of 3000 milliampères have by this means been passed through the body seems to be accepted

[1] Missbildungen des Menschen, p. 136. Jena, 1865.
[2] P. 132. London, 1890.
[3] We omitted last week to mention that Dr. Bigelow's book is published in England by Mr. F. J. Rebman.

without question. Some reasons for doubting this have at various times appeared in the columns of THE LANCET, and also in the electrical journals.

The author to whom the article on Disorders of Menstruation is allotted expresses a wish that the duty had devolved upon someone else. In some respects it is almost possible to share his regret. He is disposed to minimise the electrical knowledge required and seems to think that "the care of the battery and electrodes" is all the technical skill required for the operations he describes, and not even this if "the services of a young electrician" can be obtained. It is hardly too much to say that not only the electrical procedure but the whole subject is here treated in a more or less "jaunty" way. With this author the uterus "topples over," and the operator "tips up" the chair; and "nob on a log who follow the do-nothing policy" is the epithet which, it appears, one class of surgeons is in the habit of applying to another. Further on, in dealing with the treatment of obstructive dysmenorrhœa, the author tells us that whilst he is applying the speculum sound &c. "the patient has been loosening her clothes and has applied the Apostoli clay electrode to her abdomen." She then, with a five-minute sand-glass in her hand, acts as timekeeper and "informs him that the five minutes have passed." Is there a specially trained class of patients cultivated in this part of Her Majesty's dominions to supply this gentleman's clinic?

The question of Facial Blemishes is appropriately left to a lady. By way, it is presumed, of simplifying the matter for electrical treatment, hypertrichosis is divided into H. universalis and H. partialis. The former is easily disposed of, inasmuch as, according to the authoress, (1) it is not amenable to treatment; and (2) there is no such thing. The partial form is dealt with under yet another name, "H. acquisita." So elaborate a nomenclature seems scarcely called for and in the present instance looks rather like "splitting hairs" before extracting them. There is a very effective before-and-after treatment drawing of a case of nævus araneus, and also a reference to that form of pigmented nævus which, it appears, is known as the "bathing-tights form."

The name of the author that stands under the article on Diseases of the Spinal Cord is a sufficient guarantee of its excellence. He is well known as the discoverer of the "static induced current," and more recently as the inventor of the "metabolic polarity" hypothesis. The former has established itself; the latter—not yet. The opening paragraphs sound no uncertain note. "There can be but one lasting basis of electro-therapy, and that must be built on the physics of electricity." A subsequent sentence brings this point home. "Scarcely less worthy of attention, except that it is often maintained by high authorities, is the contention that at a given current strength the pain produced at the electrodes is greater in direct ratio to the electro-motive force which produces the current; that, for instance, 10 milliampères received from a few cells without the intercalated resistance of a rheostat is far less painful than 10 m.a. received through a rheostat requiring, say, sixty or more Leclanché cells to produce the current strength named. Obviously a milliampère is a milliampère whatever may be the ratio of the electro-motive force and of the resistance which governs the rate of flow." This is a most important point in connexion with the therapeutic use of light circuits. The error is not an uncommon one and has been committed and corrected nearer home in recent months. A paper on Intestinal Occlusion treated by Electric Injection will well repay perusal. The author explains that insurmountable obstacles (ileus, twists of the intestines held by adhesions, &c.) must be treated by the knife, but cases of pseudo-strangulation, "stercorate" obstruction, "intestinal palsy," enteroptosis, and foreign body are amenable to electrical treatment; and in such cases, the diagnosis being always uncertain, the treatment in question ought first to be resorted to. In explaining the action of the fluid electrode the author is made to say that the intensity of current used is "on an average 40,000 ampères for each square centimetre." Has this error occurred in translation, or has the "prince of printers" or his attendant "prince of darkness" thought that something of this sort was necessary to explain the slight "burning sensation and smarting" referred to in a subsequent paragraph? The article on Neuroses is interesting and original. The question of suggestion is dealt with in a way that ought to commend itself to any unbiased mind. Neurasthenia is referred to as "a sort of general omnibus, into which everything that is not organic or does not belong to a special type shall be dumped." The treatment of Stricture is an able article by an admitted authority, but the measurement of current strength by "cells" is a serious blot.

On laying down this book the reader will have the satisfaction of feeling that his knowledge has been brought into line with the modern aspect of medical electricity, that he has gained a deeper insight into its capabilities, and a broader view of the field it covers. He will be convinced that the more that is known of the nature of electrical energy the more it appears capable of being turned to account in dealing with morbid conditions of the living organism. Reverting again to the introductory essay, can it be said of this country as the author says of his, that "the time is ripe for systematic instruction in electro-therapeutics in our medical schools"?

A Catechism of Hygiene and Sanitary Science. Part I. By PATRICK HEHIR, M.D., F.R.S. Edin., F.R.C.S. Edin., D.P.H. Camb. Calcutta: Thacker, Spink, and Co.

THIS volume is the first part of a series which we are informed is to comprise no less than fifteen parts. Part I., the volume now under consideration, consists of 600 pages of small pica type and has reference solely to the subject of water. The work, like those which are to follow, is arranged as a series of questions and answers, the intention of the author, as set forth in the prospectus, being to enable the student "to focus his knowledge and act as a sort of examiner." The object of the work is certainly a praiseworthy one, and a considerable amount of labour must have been expended in its preparation. What, however, continually impresses itself upon us as we read it is that the number of questions and answers might with advantage have been much curtailed, and that the same question is often asked over and over again, though in different form. We cannot think that 2353 questions spread over 600 pages of small print are necessary either for conveying the knowledge which is contained in the book, or for subjecting the student to a process of self-examination on the subject of water. We regret, too, that the revision of the proofs has apparently been performed in a somewhat unsatisfactory manner, and misprints are by no means infrequent; in fact, we have noticed in one instance that the major part of the answer does not obviously refer to the question which precedes it. At any rate, we think most examiners would be surprised to learn that the special qualifications of a good filter are that it must be free from damp, be charged with perfectly pure air in a steady, changing current, be maintained at an even temperature, and be free from droughts (*sic*); indeed, it seems that this portion of the answer has reference to a house rather than a filter. Again, in answer to question 1256, which refers to gas and water, all reference to the former is omitted. There is much useful knowledge in the book; in our opinion, however, it requires careful

revision, with considerable curtailment and rearrangement, before it will serve in a satisfactory manner the purposes for which it was compiled.

Diseases of the Nose and Throat. By F. DE HAVILLAND HALL, M.D., F.R.C.P. London: H. K. Lewis. 1894.

THIS is a book of convenient size, of 524 pages, with a good index and an excellent list of selected prescriptions. It is enriched by two coloured plates and fifty-nine illustrations. Part I., comprising 168 pages, deals with the affections of the nose. Part II., of about 140 pages, treats of the diseases of the pharynx, and the remainder of the work with laryngeal affections. The latter part of the work is the best, and the descriptions and diagrams of various intra-laryngeal paralytic conditions are excellent. So far as intra-nasal diseases are concerned, we are glad to find that the author is aware of the inevitable risks that surround operations on the nasal cavities, and that he inclines towards the avoidance of operations unless the indications are plainly marked. At the same time, his description of some of the surgical procedures would scarcely prove a guide to an intending operator. His remarks upon deviation of the septum, for instance, would give a young surgeon no idea of the tedious and generally unsatisfactory nature of the operations undertaken to rectify this deformity. The large diagram on page 3 shows the common anatomical inaccuracy of placing the inferior turbinal on a level with the floor of the nose. In the article on epistaxis the author shows to full advantage, and his knowledge as a physician is pre-eminent. The descriptions of the operative treatment of such affections as nasal polypus, epithelioma of the tonsil, and antral abscess illustrate how ill defined are the lines that now separate a physician from a surgeon. In this work Dr. Hall has brought together a large amount of useful information in a serviceable and readable form. He enters well into the important considerations of treatment, and in a book of moderate size the practitioner may find useful guidance for the diagnosis and treatment of the principal affections of the nose and throat.

New Inventions.

A HEAT ABSORBENT GAS REFLECTOR.

THIS is an invention introduced by Messrs. J. Gill and Sons of Heckmondwike, which aims at removing by automatic action certain impurities in the atmosphere of rooms—such, for instance, as the products of combustion of coal gas, or of the smoke from tobacco—and at the same time to absorb the oppressive heat evolved from gas flames, and also to impart a degree of humidity to the air necessary for healthy respiration. The essential feature in the apparatus is simply a reflector, which is so constructed as to form over the gas burners a receptacle also for water. The reflector, in fact, consists of a large open dish provided with a concave bottom, and is twenty-four inches in diameter and capable of holding from seven to eight gallons of water. A small flue passes through the centre of this reservoir, so that the heated currents of air in their passage upwards are made to take a downward direction and to impinge upon the surface of the water. By this means it is claimed a constant current of air circulates through the system and returns to the air of the room deprived of its impurities, cooled, and endowed with moisture-giving properties. To some extent this result is no doubt obtained, but this arrangement is more effective probably immediately after the gas is lighted, as then the water used for washing the products would be cool, and more capable of absorbing or dissolving gaseous impurities. On the other hand, as the temperature of the wash-water increases there would be a tendency for some of the previously absorbed impurities to be expelled. By means of a syphon pipe, however, the water may be charged from time to time and a fresh supply put in its place. In any case a careful analysis of the water drawn off in this way would give the best idea of the working efficiency of the apparatus. Thus, if it were working satisfactorily, the wash-water should contain distinct, though measurable, quantities of ammonia, and carbonic, sulphuric, and sulphurous acids. With the absorption of these products accomplished, and with them also tobacco—and other exhalations—there can be little doubt but that the condition of the air of dwelling-rooms would be greatly improved, and the injurious effects of gaseous products of combustion on individuals, as well as on articles of furniture, would be considerably lessened. Few would be slow, we imagine, to appreciate an improvement of this kind in the air of billiard-rooms, concert-halls, and so on, where gas is employed for lighting purposes. While, however, it is claimed that the use of this apparatus serves to maintain a healthy, moist atmosphere, it is well, though hardly necessary, perhaps, to point out that the gas flame itself is constantly exhausting the oxygen of the air in the room, and that some provision is consequently required to keep the room supplied with fresh air, and to provide an outlet for the exhausted, although it may not possibly be vitiated, air. The general system of lighting houses and public buildings by means of gas is, as everyone must feel, far from satisfactory from a sanitary point of view; all the more, therefore, do we welcome an endeavour to effect some improvement in this direction. We regard the design of the ingenious apparatus above described as a praiseworthy attempt of this kind, and doubtless it accomplishes in some degree much that is claimed for it. A serious drawback, however, to its application in dwellings would be, we fear, the size and consequent cumbersomeness of the reservoir reflector. Thus it is constructed to hold seven to eight gallons of water, which means a weight of from 70 lb. to 80 lb. dependent upon the ceiling for support.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—The following office-bearers were elected at the recent annual general meeting of the society for the session 1894–95:—President: Dr. Hector C. Cameron. In Medicine: Vice-President, Dr. Finlayson; Councillors, Dr. W. A. M'Lachlan and Dr. James W. Allan; Secretary, Dr. C. O. Hawthorne. In Surgery: Vice-President, Mr. A. E. Maylard; Councillors, Dr. MacPhail and Dr. James A. Adams; Secretary, Dr. John Barlow. In Pathology: Vice-President, Dr. Charles Workman; Councillors, Dr. T. K. Monro and Dr. L. R. Sutherland; Secretary, Dr. R. M. Buchanan. In Obstetrics: Vice-President, Dr. M. Cameron; Councillors, Dr. Jardine and Dr. George Halket; Secretary, Dr. Lawrence Oliphant; Treasurer, Mr. Henry E. Clark; General Secretary, Dr. Walker Downie.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual general meeting of this society was held on Friday, May 25th, at 11, Chandos-street, the chair being occupied by the President, Sir James Paget. The report showed that thirteen new members had been elected in 1893, 15 had died, and 2 resigned, leaving 308 on the books. Fresh applications for grants had been received from 2 widows and 1 orphan, 6 widows had died, and 4 children had become ineligible for further grants. A sum of £2880 10*s.* had been distributed among the widows and orphans receiving assistance. The expenses of the year amounted to £250, while the receipts available for the payment of grants and expenses amounted to £3247. A legacy of £791 had been paid, and the funded property increased by the purchase of £843 10*s.* stock. The following gentlemen were elected to fill the vacancies in the offices of the society: Mr. Merriman, Vice-President; Dr. Church, Treasurer; and Dr. Braxton Hicks, Dr. Russell Reynolds, Dr. Morison, Mr. Rouse, Mr. Langton, Dr. Oswald, and Dr. W. Warton Hood, Directors.

THE LANCET.

LONDON: SATURDAY, JUNE 9, 1894.

WE receive on all sides grateful testimony to the beneficent work of the Metropolitan Hospital Sunday Fund. One correspondent of many writes: "I am thankful to see that unceasing efforts are still being made on behalf of our hospitals, of the value of which I can speak personally, having had the determination of my existence deferred by the careful treatment I received in one of those invaluable institutions." Indeed, we are encouraged in our work by a vast mass of correspondence received from all conditions of men who testify with personal gratitude, or with emotion born of a deeper cause, to the worth of the institutions, on behalf of which an appeal will be made to-morrow in every place of worship in the metropolitan area.

Perhaps we may be permitted to state that in times past, when the amounts of the offertories and donations have fallen below the maximum figure, the cause has not been found to be due to any diminution in the sums received from the smaller congregations in comparatively poor districts. The Fund appeals to the populace at a period of the year when many members of the aristocracy and the wealthy classes of the community are away from the metropolis. This is a pressing reason why we should urge upon those members of society to whom the poor must, under present conditions, inevitably look for sustenance the terrible difficulties—in many cases catastrophes—which must follow the withholding of their donations upon the occasion of Hospital Sunday. May we appeal especially to such not to neglect by any oversight their obvious duty of sending, according to their prosperity, their donations directly either to their ministers or to the secretary of the Fund? While it is hardly possible to concede that, in the face of so much spiritual teaching and in this enlightened age, the human heart has grown "sadly colder" to the necessities of the suffering (to quote the letter to us last week from the BISHOP OF LONDON), it is difficult to realise, on the other hand, any other cause for the comparatively puny offerings of the sound in health and pocket in aid of the 103,585 persons who have been disabled by disease and poverty in the course of the past year and have been received into the hospitals as patients.

The medical men who give their services gratuitously to those seeking their assistance in the metropolis had their help invoked no less than 3,871,290 times during the past year. None know better the monetary requirements of the hospitals than the members of the medical profession, who offer freely in this cause their time and skill, oftentimes with but little prospect of temporal recompense. In former years we have successfully invited the coöperation of our medical brethren in bringing this Fund and its objects before the notice of those whom they can so powerfully influence. At the present time a combined effort is more than ever required if the people of London are to wipe off a reproach of long standing and serious import. For those who are not immediately acquainted with the work of the Fund it may be deemed advisable to repeat what has been in part already pointed out, that last year awards amounting to £32,139 were paid to no less than 119 hospitals; that £813 were awarded to eight institutions, and that fifty-three dispensaries received in all £1828. The work of the Fund does not cease here, for a certain sum (amounting last year to £1883) is annually set aside for the purpose of aiding patients to purchase or procure expensive surgical appliances, the total number of which supplied during the year 1893 amounted to no less than 2654. It would be impossible to estimate the amount of good which is secured by this beneficent provision of the Mansion House Committee. Many a breadwinner who through accident or disease has become maimed or crippled and unable to continue the struggle for his daily bread has been enabled through such aid to obtain a livelihood for himself and for his children.

There is another point to which allusion has frequently been made in these columns, and that is that, in spite of the arduous nature of the work of controlling so vast a charity year by year, there is no other charity in the world conducted at a lower percentage of cost than the Hospital Sunday Fund. Its average working expenses during the past year were not more than 4·074 per cent. of the contributions received. Although the work is economically carried out, it must not be thought that the efficiency of the management is by any means thereby impaired. Any hospital whose administration expenses exceed what is considered a fair expenditure in proportion to the cost of maintaining patients applying for a grant is at once made the subject of inquiry, and upon the result of this inquiry the grant from the Hospital Sunday Fund depends. The number of deputations representing the committees of various institutions invited to confer with the Mansion House Committee and to offer explanations on matters of apparently unsatisfactory character was ten; of these, eight elected to leave their awards entirely in the hands of this committee while two deputations attended personally. All were recommended grants on reduced bases. One application was received from a "sick club" under the name of a "dispensary," but the institution was not deemed eligible for an award. Awards were, therefore, recommended to 171 institutions on full bases and ten institutions on reduced bases. These awards have been set forth in detail in the Supplement which was published in our columns last week. This was done with a view of affording such information to the ministers and members of the different congregations as might bear upon the hospitals in their immediate neighbourhood and afford interesting matter for topical and local allusion. The work of organising so vast a charity has now been successfully accomplished, and we are anxiously awaiting a successful result.

In conclusion, it is fitting that we should briefly pass in review, particularly on the present anniversary—which we hope will result in one of the most successful offertories in support of this splendid charity—the services rendered by those to whose industry and energy the public of London are indebted for its continued existence and success. There can be no doubt that those to whom has been entrusted the active share in the work of organising a charity

extending to every member of the community, and appealing, as it does, to each, have had no light task to carry out. Since the introduction of the Fund at the period when Sir SYDNEY WATERLOW (now Vice-President) occupied the civic chair in 1873, his lively interest in all its concerns has never ceased. In connexion with his work we may allude to the fact that he has been the moving spirit in preparing the details of the conversazione which was given by the Lord Mayor the Right Hon. G. R. TYLER at the Mansion House on Thursday last, in arranging which he has been assisted by Mr. H. C. BURDETT. The hon. secretaries, Sir EDMUND A. CURRIE and Mr. RICHARD B. MARTIN, M.P., have conduced largely to the success of the Hospital Sunday movement, not only by serving on its committees, but also by bringing their wealth of business knowledge to bear upon the interest of the Fund. The indefatigable services rendered by the secretary, Mr. H. N. CUSTANCE, have at all times been apparent, and it but remains for us to congratulate the present Lord Mayor, its president and treasurer, on having devoted so much time and attention to this beneficent work, and for having still permitted the Mansion House under his period of office to be devoted to the interests of the Fund. With him, the Council, and the different committees, especially the Committee of Distribution, and with all the other active agents of the Fund, we are glad to coöperate.

It is our great pleasure that all our work in every respect has helped to assist the appeal, and that our reward is measured by the yearly increase of the amount of the offertory.

THE several and various methods which are in vogue at the present time for the treatment of sewage, whether in regard to its utilisation or to its disposal as a waste product, are none of them of so satisfactory a character as to lead the medical officer of health to regard with indifference schemes which seem to offer—even though remotely—possibility of improvement; and as an illustration of this dissatisfaction, and of the interest which even the novel application of an old principle excites, we may point to the Hermite process.

For this system it is claimed by its promoters that, by the application to sewage of sea water rendered chemically active by means of electricity, complete deodorisation and sterilisation of the sewage are produced. These claims have recently, as our readers are aware, been subjected to the test of chemical and bacteriological examination at the hands of our Special Commissioners, and it will probably be conceded by all that the process—as carried out at Worthing—has had a fair trial. Although these investigations have apparently demonstrated that the prophecies of M. HERMITE with regard to his system have not been entirely fulfilled, it would seem that the process has in some measure, at least, justified the great interest which has been taken in it. As a result of their investigations, our Commissioners conclude that the chief active constituent of the electrolysed sea water is most probably hypochlorous acid, and they regard the Hermite solution as possessing bleaching properties superior to those possessed by ordinary bleaching powder solution, though not in excess of those possessed by a solution of bleaching powder in which the hypochlorous acid has been liberated by the addition of a weak acid. The fluid, too, has considerable deodorising power, but does not destroy or remove organic matter. Against these properties are to be placed others which certainly much depreciate, if they do not entirely destroy, its value for the special purposes claimed for it. Amongst these drawbacks is the fact that the fluid is rapidly reduced in strength by the presence of common newspaper, as also by that of soap and domestic waste water, and the manner in which these properties would tend to unfit the fluid for its efficient application to the contents of a common sewer is obvious. It is difficult, too, to see what is to become of the sewage effluent, inasmuch as if it contained, as it apparently should do, an excess of the electrolysed fluid it would be unfitted for pouring into rivers, and its further treatment would probably be impracticable from a financial standpoint. The action of the fluid on leather and indiarubber is a strong objection to its use in a system of pipes fitted with the usual washers in the valves and fittings, although it appears it only attacks pure, clean iron in a slight degree, a deposit, probably of impure hydrated oxide of magnesium, forming, which prevents further action on the pipes. Furthermore, the electrolysed sea water—although strong solutions of it are practically stable in presence of distilled, or ordinary potable water—when mixed with untreated sea water rapidly loses strength, owing probably to its reduction by the organic matter present in the sea water. In regard to the cost we cannot speak in detail, but it may be remarked that a very considerable initial expenditure would be necessitated for the provision of new mains, cisterns, and pipes. It is clear, too, that the method, as put forth by its promoter, would only be applicable—without, at least, a prohibitive expenditure—to seaside places, though it appears that possibly an "artificial" Hermite solution might be used for inland towns.

The bacteriological investigation aimed at ascertaining the behaviour of micro-organisms in the presence of various samples of the electrolysed sea water and other fluids of approximately similar chemical properties during varying periods of time.

In the main the examinations were confined to the conditions obtaining in the intercepting syphon which contained only human dejecta and electrolysed sea water, as it was perceived that here the process was acting under the most favourable conditions, and that if it failed to effect sterilisation under these conditions here was no hope of success where waste and storm water was admitted; in fact, in this connexion our Commissioners state that, having regard to the varying amount of slop water dealt with at different times, it would be difficult, even if the electrolysed fluid was laid on to the sinks &c., as stipulated by the promoters, to ensure that each discharge of slop water should receive its proper proportion of the fluid. With regard to the storm water, it is probable that the difficulties would be practically insurmountable. It was found that when the electrolysed fluid was applied to dejecta only in strengths of from 0·93 to 0·50 gramme of chlorine per litre, although there was an enormous reduction in the number of colonies present on the culture plates, the effluent could not be regarded

germ-free; and it was further ascertained that the surviving organisms were not all of a spore-bearing sort. It appears, however, that the characteristic organism of stools—the bacterium coli commune—was never discovered in this series of experiments, and this is, as our Commissioners point out, an important fact, inasmuch as, had this organism been detected, it is probable that the bacilli of such diseases as cholera and typhoid fever would also have escaped destruction. Although, therefore, sterilisation was not completely effected by the Hermite fluid under the most favourable conditions of its application, our Commissioners conclude, as a result of their experiments, that any pathogenic organisms, such as those of typhoid fever and cholera, would be effectually dealt with, as also would the more resistant bacterium coli commune. It must be borne in mind, however, that these remarks apply only to dejecta, and not to the "mixed" system; in fact, without referring in detail to the experiments, it may be mentioned that in the examination of the fluid in the syphon C, where waste water was allowed to mix with the Hermite solution, practically no reduction in the number of colonies took place until after a considerable interval of exposure. During the course of their experiments our Commissioners determined that, when what may be termed an "artificial" Hermite solution is prepared by passing carbonic acid gas through bleaching powder solutions, the process of sterilisation is rendered much more rapid; in fact, it was demonstrated that in a bleaching powder solution thus treated we have a readily procurable substitute for the Hermite solution. The value of electrolysed sea water as a disinfectant is spoken highly of by our Commissioners, and they consider that it is superior in this respect to carbolic acid, even when it is used in solutions of relatively great dilution. They are of opinion, too, that the facility with which even corrosive sublimate unites with organic bodies renders it of less value as a practical disinfectant than the Hermite solution.

If this be so, it would seem that there are still hopes of some future adaptation of the principle as suggested by M. HERMITE, and that possibly fever hospitals and infirmaries may be able economically to apply it. However this may be, we feel that the electrical treatment of sewage has to some extent justified a claim to our attention and our columns will always be open to well-considered proposals for its discussion.

THE London County Council had under consideration last Tuesday a subject of undoubted importance to the metropolis. The question which engaged the attention of that body was no less than the practical extinction of the Metropolitan Asylums Board and the division of its duties among the existing metropolitan authorities. The circumstances under which this matter came to be discussed need to be stated. More than a year ago the Council, on the motion of a member who is himself a manager of the Metropolitan Asylums District, resolved that, having regard to the fact that the charge of the lunatics of the metropolis is vested in the London County Council, and that of the imbecile and infectious poor in the Metropolitan Asylums District Board, the Asylums Committee should be instructed to consider and report upon the present system and the advisability of asking Her Majesty's Government to place the charge of the lunatics and of the imbecile and infectious poor under a special representative body to be elected by the ratepayers. The Asylums Committee of the Council found that any rearrangement of the duty of providing for lunatics and imbeciles necessitated consideration of the duty of providing for the infectious poor and the management of schools and training ships, and the Council therefore, at the request of the committee, included in the reference the Public Health and Industrial Schools Committees. It was on the report of a joint committee representative of the three committees concerned that the subject came, therefore, again before the Council.

This Committee has received reports from several members of the Council and from the Council's medical officer. Its own report is a carefully prepared document, which enters with sufficient detail into the circumstances under which the present division of duties originated. The report shows that the Metropolitan Asylums Board was in constitution and intention a Poor-law authority, appointed by the boards of guardians and the Local Government Board, and designed to provide special accommodation for infectious paupers. To this Board it was convenient to entrust the duty of providing asylums for imbeciles as well as training ships for boys who otherwise would have remained in the workhouse schools. The constitution of the Metropolitan Asylums Board was, in fact, due to the necessity of the existence of some authority which while dealing with London as a whole could relieve the local Poor-law administrations of duties which could not be as well undertaken by each district authority acting separately.

The result has in large degree justified the action of the Legislature. The argument that these functions could be better performed by a body acting for the whole metropolis has been proved to be sound, but the proof has gone beyond the most sanguine expectations of those who had promoted this legislation. From the moment the Managers undertook to provide for infectious paupers their hospitals were taken possession of by patients who were in no sense paupers, and these institutions became in effect open to all classes of the community. No serious attempt could be made to stem the tide of events. The relieving officer's order for admission had to be abandoned. The certificates of the Poor-law medical officer, necessary for the admission of sick persons, had to be superseded by the certificate of any medical practitioner. The inmates of the hospitals were relieved of the stigma of pauperism. The power to recover the costs of maintenance was abandoned, and the hospitals were declared free to all classes. The chairman of the Metropolitan Asylums Board himself recognised the impossibility of continuing the dissociation of the duty of providing hospitals from that of disease prevention, and as a result he put forward a claim for the Managers' functions to be enlarged so as to include the latter. The question, therefore, whether the constitution of the Metropolitan Asylums Board should be altered—whether, in fact, the Managers should be directly elected by the ratepayers—is ripe for consideration, and especially because during the time which has elapsed since the passing of GATHORNE HARDY'S Act the London School Board had come into existence with large powers as to education,

and the London County Council had been created with important powers as to sanitary administration and disease prevention, with the duty of providing for lunatics within the county, and with the charge of the existing industrial and reformatory schools.

The real points at issue are whether two bodies having functions so similar can properly exist in London, whether the duties of hospital provision and disease prevention shall be combined, and whether the duties of providing for lunatics and imbeciles shall devolve on one body. The report which Dr. W. J. COLLINS brought up to the Council discusses all these questions, and the conclusions at which his committee has arrived are, we believe, so far as relates to the distribution of duties, absolutely sound. There is now no reason for maintaining the training ships apart from the schools under the control of the London School Board, and, further, we agree entirely with the contention of the committee that the industrial and reformatory schools of the Council, the training ship of the Metropolitan Asylums Board, and all district and other pauper schools should be entrusted to the London School Board; this step, the committee say, "would effect a most desirable reform—namely, that of removing a large number of children from a position in which, by no fault of their own, the stigma and deadening influence of pauperism attach to them during the most receptive years of their life."

The arguments with respect to the health administration of London are not less reasonable or conclusive; the change suggested is indeed even more urgent, for the overlapping of the duties of the Council and of the Metropolitan Asylums Board must tend to increase rather than decrease. The passing of the Local Government Act and of the Public Health (London) Act has brought the Council into direct relation with the administration of the London sanitary authorities. The appointment of a medical officer of health of the county marks the future of the Council. Is it then possible to create for London two separate central metropolitan authorities concerned in the duty of disease prevention? There can be but one answer to such a question, and obviously either the Council or the Metropolitan Asylums Board must be prepared to relinquish their duties in connexion with preventable disease. Before the year 1888 a change in the constitution of the Metropolitan Asylums Board might have led to its creation as the central metropolitan health authority; but the time for such change has now gone by, and the Council has, by its activity and work, firmly established itself in this position, and every year sees its powers in this direction enlarged by Parliament. It is, therefore, inevitable that at no distant date the Council will have to assume the functions now possessed by the Managers.

On the remaining question, as to whether the charge of lunatics and imbeciles should be vested in the same authority, there can, we think, be no doubt, although opinion may reasonably differ as to whether the Council should undertake this duty, or whether it should devolve on a separate authority. Upon this point we propose to say something later; but at the present moment we may express our satisfaction that the Council has at last determined to express a decided opinion upon this important question of the health administration of London

Annotations.

"Ne quid nimis."

THE COMING ELECTION AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

NOTICES have been issued by the Secretary of the Royal College of Surgeons of England to acquaint the Fellows of the College that "a meeting of the Fellows will be held at the College in Lincoln's-inn-fields on Thursday, the 5th day of July next, at 1.30 o'clock in the afternoon precisely, for the election of three Fellows into the Council of the College. Voting papers will be sent by post to the Fellows who have already applied for them on Friday, the 22nd of June, and no application for a voting paper which has not been received by the Secretary before 1.30 o'clock P.M. on Monday, the 25th of June, will be valid." The three vacancies on the Council arise from the retirement by rotation of Mr. Edward Lund, Mr. Reginald Harrison, and Mr. Howard Marsh. Mr. Lund has served for two consecutive periods of eight years and does not intend to offer himself for re-election. Mr. Reginald Harrison has enjoyed his full term of eight years. He was elected in 1886 as a representative of the provincial Fellows, being then resident and in practice at Liverpool. He will now stand as a metropolitan surgeon. Mr. Howard Marsh has only been in office two years, having been elected to fill the vacancy created by the death of Mr. Berkeley Hill. He has therefore been in the unenviable position of a substitute member. It may be remarked that when the charters and by-laws were under review by the Council of the College in 1884, with a view to securing a new charter and the revision of some of the by-laws, an endeavour was made to secure the abolition of substitution in the election of members of Council, but without success. It would certainly be fairer and more convenient that all members of the Council should be elected for a fixed period, the present practice being vexatious and liable to be attended with injustice to individuals. It will be noted that on the present occasion there is one, and only one, absolute vacancy on the Council to be filled, and for this vacancy there will probably be a keen competition. Mr. A. T. Norton, Senior Surgeon to St. Mary's Hospital, who ran a neck-and-neck race with Mr. Morris for the fourth seat last year, has consented to stand again upon the invitation of the Association of Fellows. We learn also from Manchester that a committee has been formed to promote the candidature of Mr. Hardie of that city. Intending candidates must send in the requisite forms, duly filled up, not later than Monday, June 11th; after which date, with the names before us, we shall be in a position to review the claims of the respective candidates. Fellows of the College will see that if they wish to vote by voting paper they must apply to the Secretary before 1.30 P.M. on Monday, June 25th. This restriction will in all probability be removed before 1895, as the Council of the College has already decided to apply for a revision of Section IV. of the present by-laws regulating the election and admission of members of the Council, and there can be little doubt that the proposed alterations will receive the sanction of the Fellows of the College, to whose consideration they will be submitted at the meeting of Fellows to be held after the election. It will also be observed that the poll at the election on July 5th will open half an hour earlier than usual—viz., at 1.30 P.M. instead of 2 P.M.,—and consequently it will close half an hour earlier—viz., at 3.30 P.M. instead of at 4 P.M. The alteration of time has been made to permit of the commencement of the consultative meeting of Fellows at 5 P.M. The election, however, cannot be

proceeded with at 1.30 P.M. unless at least six Fellows of the College, exclusive of the members of Council, are actually present at the specified time.

PORTRAIT OF THE LATE SIR ANDREW CLARK.

THE portrait of their late President, which Mr. Lehmann was commissioned to paint by the Royal College of Physicians of London, is now finished, and is a most satisfactory and excellent likeness. It can now be seen at the College. The judgment of Lady Clark and of all who have seen it as to its merits is, we are informed, highly favourable. Lady Clark has expressed herself as "satisfied, and more than satisfied, with the portrait." An impression seems to prevail that this memorial is restricted to Fellows and Members of the Royal College of Physicians. This is not accurate. Although the picture will be hung in the College, all members of the profession and all friends of the late Sir Andrew Clark are invited to subscribe, and we may remind our readers that the list has now been open some time. The question of autogravure copies has not been definitely settled by the committee.

THE STATE OF THE STREETS.

LORD RANDOLPH CHURCHILL has written a letter to *The Times* denouncing the state of the streets, which, he alleges, are insufficiently and inefficiently scavenged. Although we think it might be possible to bring an analogous accusation against his lordship's letter, we nevertheless admit that his letter, like the streets, is sound at bottom and demands attention. There are two ways of looking after streets. Let us describe that which is usually practised. In the forenoon, at a time when the daily traffic is approaching what may be called "full swing," there appears a machine-brush, drawn by a magnificent horse and driven by a less magnificent man, and this ingenious machine collects the foulness of the streets into strait ridges, which are allowed to be scattered again immediately by the passing vehicles. An hour or so later comes a parish official with ten or a dozen men (a nondescript Falstaffian regiment), who brush into heaps so much of the ridges collected by the horse-brush as has survived the traffic. Finally comes a four-wheeled van, drawn by a single horse and tended by gentlemen wearing fantailed hats, who collect so much of the heaps as has not been scattered by the traffic, and thus the evening and the morning make a day. If the day has been wet hundreds of persons have stepped over their ankles into the mud-traps which the parish has prepared for them at the side of the kerb; if the day has been fine and windy the passengers in the streets have had a taste of the sufferings of Orestes. In the process of cleansing there have been employed a horse-brush and a van and two horses, worth collectively not less than £250 and costing at least £2 a week to house and keep, a foreman and fourteen or fifteen men. There can be no doubt that the proper method of street cleansing is that which is largely followed in the City, where the horse droppings are collected and stored in bins without any undue delay. To merely sweep the stuff into heaps before the time for actual removal has arrived is merely to "make work." We can see no reason why the methods used by the French on their main roads should not be practised in this country, even in cities. Each three or four kilometres of a main road in France are placed in charge of a *cantonnier*, whose duty it is to keep that part in order—to sweep and scrape and repair. The result is that the roads are always in splendid order, for no sooner are a few stones loosened by the traffic than the *cantonnier* comes with his rammer and some fresh metal and repairs the breach. This is the principle of the "stitch in time," and is one which is worth consideration, even in London. Why should not each suitable length of street have its recognised "street keeper," whose duty it should be not only to sweep, but pay constant attention to the slight repairs? This functionary should commence his work not later than 4 A.M., and should disappear at 1 or 2 in the afternoon. If he did his work well and became favourably known to the inhabitants his berth might prove lucrative. The street keeper would have to be a person able bodied and fairly intelligent, and he would need some kind of shelter and one or more bins for storing metal and for keeping the sweepings pending removal. The inhabitants would know to whom the credit for keeping the street either well or ill was due. Everything must be done nowadays on a big scale. Horse-brushes, "hydrostatic vans," steam rollers, and the heaviest carts and horses have come to be thought essential. Our streets are allowed to become honeycombed with hollows, and repairs are delayed until the evil time comes for a week's "occupation" by the steam roller. An intelligent use of the besom, wheelbarrow, waterhose, and hand rammer is well worthy the consideration of our vestries.

ANTISEPTICS IN PHTHISIS.

THE history of the use of antiseptics in phthisis is a curious and not very encouraging chapter in therapeutics. After the general adoption of Koch's views regarding the etiology of the disease it was naturally hoped that some means would be discovered of successfully attacking the bacilli in the lungs. The most obvious channel of attack was through the respiratory tract, and for some years inhalations of carbolic acid, creasote, thymol, turpentine, and similar substances were extensively tried, and a multitude of inhalers were invented, and obtained a certain vogue. It is hardly too much to say that this method of medication is now obsolete. When the life-history and powers of resistance of the tubercle bacillus were thoroughly investigated, it became obvious that there was little hope of destroying the parasite by means of medicated vapours. The air passages would be irretrievably ruined by inhalations that would still be too weak to destroy the bacillus. The improvement that undoubtedly in some cases followed the use of inhalations was seen to be an amelioration of the bronchial secretion rather than any distinct effect upon the disease at its seat. Other forms of antiseptic medication were devised, and tried, such as the once famous, but now wholly exploded Bergeon treatment—viz., the injection of sulphuretted hydrogen gas into the rectum, in the hope that the gas would be excreted by the lungs and favourably affect the disease there. Looking back it seems hard to believe that this treatment should ever have been widely accepted, and the results that were alleged to follow its application are a curious commentary upon the fallacious character and fluctuating fortunes of many therapeutic theories. At present the antiseptic treatment of phthisis is practically confined to the internal administration of creasote, guaiacol, salol, and similar remedies. These are variously given by the mouth, the rectum or (in the case of creasote and guaiacol) hypodermically. This treatment has been widely employed, and good authorities are convinced that it possesses some real influence over the disease. Thus, Dr. Douglas Powell says: "In cases of early phthisis, when the acute phase has passed, in cases also of more advanced disease, when the period of hectic has either passed or has much lessened in activity, preparations of creasote and its congeners, especially guaiacol, are of distinct value. . . Although having but little direct action upon bacillary activity, these substances have an indirect germicidal function in that they diminish suppuration in the walls of cavities and about tuberculous centres, which, started in the first instance by tuberculosis, tends to be perpetuated through the action of pyogenic organisms, and thus to render adjacent tissues more accessible to fresh bacillary attack." Granting some virtue to creasote and

guaiacol, it is an open question how they act. They may be supposed to have a direct effect upon the bacilli, either directly destructive or, more probably, more or less hindering their growth and multiplication; or these drugs may be supposed to act by exciting a process akin to counter-irritation in the pulmonary substance generally, this process in some way inhibiting or counteracting the tuberculous process; or, lastly, they might be supposed in some way to fortify the organism and render it less a prey to bacillary attack. We cannot settle these questions with any approach to certainty so long as the primary question—viz., whether creasote and allied drugs exercise any appreciable influence over tuberculosis at all—remains unsettled. The evidence on this subject, although entitled to respectful consideration, is by no means convincing. At present the practitioner is left in a serious doubt whether he should spend time and effort on a line of treatment of doubtful efficacy rather than concentrate his attention upon those tonic, hygienic, and climatic measures of which experience has proved the undoubted value.

THE VENTILATION OF RAILWAY TUNNELS.

IN a recent number of THE LANCET, April 28th, 1894, we had occasion to refer to the frequently foul condition of railway carriages. The proper ventilation of underground railways is a question of equal importance, and we are glad to see that the Board of Trade is moving in the matter. On Monday last, in the House of Commons, it was stated that a communication had been received from the Metropolitan Railway Company with reference to the question of foul air between certain stations on that company's line. The company express their willingness to do everything in their power to keep the air of the tunnels in as good a condition as circumstances will admit, but intimate that improvement can take place only if the local authorities show themselves willing to afford the company reasonable facilities for constructing openings in the roads under which the lines run. Ventilating shafts may or may not be the best means of getting rid of the poisonous atmosphere in the tunnels, but the sooner the possibility of making their absence an excuse for bad ventilation is removed the better.

WATER-SUPPLY FOR DOMESTIC BATHS.

AN action recently heard in the Lambeth Police-court possesses a public interest based on sanitary grounds and independent of the pecuniary considerations involved. The plaintiff in this case disputed the right of the Lambeth Waterworks Company to discontinue his household supply on account of non-payment of an extra charge made for bath water. According to the defence, the amount being sanctioned by the Waterworks Act forms part of the ordinary rate, with which it must therefore be paid. We will not now attempt to discuss the legal ethics of this question. What appears at first sight somewhat remarkable is the fact brought out in the history of this case, that under the Act water intended for clearly necessary uses may still be subject to terms of classification and payment distinct from those which apply to water allotted to so-called domestic purposes. Thus not only the bath-supply, but that required for water-closets is liable to a specific rate. As regards domestic necessity there surely can be no question here. The explanation of this apparent anomaly is no doubt to be found in the facility which it affords for the calculation of householders' liabilities under the system of intermittent service. Consequent misunderstandings, more or less expensive, are perhaps to be taken as a part of the general arrangement. Nevertheless, an alternative method, which would obviate their occurrence could not but be acceptable to all concerned. We might suggest as a convenient solution of the difficulty under existing circumstances that an inventory of household requirements be taken in each case and a total rate levied on this basis. Better still, of course, would be the substitution of a constant and direct for the present restricted system of supply. As regards the bath itself there exists no doubt in our own mind. So long as the integument of man is to him not a mere garment, but the respiring and exhaling purifier of his tissues, so long will the too much neglected bath remain an essential as well as a convenience, destined, we hope, to become the privilege of poor and rich alike.

PRECAUTIONS WITH REGARD TO INFECTED DAIRIES.

MR. STAFFORD, one of the medical inspectors of the Irish Local Government Board, in a recent interview with the Tralee Board of Guardians in reference to an outbreak of typhoid fever in the district, drew attention to the necessity of allowing a certain period—the length of which would naturally vary with the nature of the disease—to elapse between the removal of a case of infectious disease from the dairy and the certification of the dairy as being free from infection. Mr. Stafford, in fact, stated that he had recently had experience of a case where the dairyman was prevented on a certain Saturday from taking the milk to the creamery, but was protected on the following Monday morning by a medical officer's certificate, owing to the patient having been removed to hospital. It is certainly desirable that in cases such as these, where the milk is likely to cause infectious disease that advantage should, if possible, be taken of the provision of Section 4 of the Infectious Disease (Prevention) Act, 1890, and that the supply of the milk from the infected dairy should be prohibited by order until such order has been withdrawn.

THE CURRICULUM FOR THE IRISH DENTAL DIPLOMA.

THE report by the Education Committee of the General Medical Council on the licence in dentistry granted by the Royal College of Surgeons in Ireland will, we feel sure, be welcomed by all dentists who have the welfare of their profession at heart. It appears that the Irish College, though heretofore accepting the curriculum as recommended by the General Medical Council, although it is doubtful whether it was enforced, has now decided to omit the requirement of "a three years' apprenticeship in mechanical dentistry." Anyone who knows anything about dentistry must know the enormous part that mechanics play in its practice, and the length of time necessary to acquire even a moderate degree of manipulative ability, which is certainly not possible in two years' hospital work, the period that is demanded by the Irish College. A gloss is endeavoured to be thrown over the matter by reference to the non-recognition of apprenticeship for diplomas in surgery, &c., but no count is taken of the extra hospital work demanded in this case, and no suggestion of any compulsory alternative study made, such as instruction in dental mechanics at a dental hospital or special department of a general hospital. Further, by the new regulations candidates are only required to produce certificates of one year's attendance at a dental hospital where such attendance has been subsequent to the date of a diploma in surgery, which is reducing the curriculum to a farce. These changes have led to protests from most of the teaching bodies in England and Scotland and are by no means universally accepted in Ireland itself. The committee recommend: "That the Council intimate to the Royal College of Surgeons in Ireland that, unless the prescribed course of study for the licence in dentistry be amended, so as to bring it into compliance with the requirements of the Council prior to the next examination for the

said licence, the Council will feel it their duty to report to the Privy Council, in accordance with Section 23 of the Dentists Act, 1878, 'that it appears to the General Council that the course of study to be gone through in order to obtain the licence in dentistry of the Royal College of Surgeons in Ireland is not such as to secure the possession by persons obtaining such certificate of the requisite knowledge and skill for the efficient practice of dentistry; and, further, to request the Privy Council to make order that the certificates granted under their present regulations by the Royal College of Surgeons in Ireland shall not confer the right to be registered under the Dentists Act.'" A further suggestion was made that an inspector or inspectors should be appointed whose duty it should be to visit and report on the examinations conducted by the bodies granting qualifications in dentistry, with special instructions to examine the schedules and certificates presented by each candidate. These recommendations were adopted by the General Medical Council.

THE SEASON IN SWITZERLAND.

UNDER date Zurich, May 29th, a "Holiday Contributor" writes: "The season begins badly in 'the playground of Europe.' The promise held out by the mild, comparatively warm weather of the first three weeks of May has not been maintained. Since Friday, May 25th, the rain has been general, particularly in Central, North-eastern, and North-western Switzerland. In some cantons there have been violent thunderstorms, accompanied by hail, which, happily, has done no great damage. On the uplands the snowfall has been considerable, with consequent depression of the thermometer on the lower levels. Yesterday morning the Jura and the Alps were covered down to their feet in a fresh garment of snow, and at Lausanne the temperature at 5 A.M. was just 5° above zero. As I write the news reaches me that at Gossau (Canton St. Gall) M. Schaffhauser, deputy to the Grand Conseil, has been killed by a stroke of lightning; while at Bühl, a hamlet not far from Gossau, the rainfall gave rise to floods which required the intervention of the 'corps du sauvetage.' At Samaden, in the Grisons, the snow was yesterday a foot deep. Nor has the weather been less trying in Savoy. At Bonneville snow has fallen heavily, and from Pontarlier I hear that the cold is quite wintry, a snow-storm having prevailed since Sunday morning. The cold at present so severely felt at Aix-les-Bains is also felt at Baden-im-Aargau. In fact, those of our compatriots who are now having recourse to these favourite baths are 'feelingly persuaded' that they have begun the 'Kur' at least a month too soon."

SCHOOL HYGIENE AND DIPHTHERIA.

THE extent to which the State may be called upon to intervene in the sanitary protection of childhood received fresh illustration last week in Vienna, where the Medical Society met, under the presidency of Professor Puschmann, to consider the best means of preventing the diffusion of diphtheria in schools. The proceedings were opened by Dr. Emanuel Kohn, *privat-docent* on Syphilitic Diseases at the University, who set out by showing the fearful ravages wrought in the last three years and in the beginning of this year by diphtheria, especially in the educational establishments. The spread of the malady, he insisted, necessitates a corresponding extension of sanitary regulation, even at the expense of what has been claimed as "the liberty of the subject." As in vaccination, the rights of the majority must overrule the prejudices and the resistance of the individual, while the legally imposed duty of educating the child ought equally to give the parent the right of demanding State protection for it—protection such as hygienic science and hygienic authority has devised and approved. Such protection, Dr. Kohn contended, we have against diphtheria in the permanganate of potash, the application of which, by the spraying apparatus, to the fauces of the pupils ought to be a regulation *de rigueur* every day before the school breaks up. A memorial, embodying the enforcement of this regulation, was formulated by Dr. Kohn for submission to the Minister of Education, and this he followed up by a recommendation that his Excellency should appoint a commission to watch and report upon its working. In the discussion that ensued Dr. Eisenschitz demurred to the permanganate as the best means of the disinfecting process contended for, while Dr. R. Paltauf (President of the Bacteriological Institute) insisted on its absolute inefficacy. Their objections, however, took note of the means rather than of the end advocated by Dr. Kohn, who certainly made out a *primâ-facie* case for Government intervention in school management, particularly in presence of such a disease as diphtheria. Austria boasts, and with considerable reason, of her admirable system of State surveillance over scholastic life. She has an opportunity of justifying that boast by the practical recognition of some such reinforcement of her system as that recommended by Dr. Kohn.

NON-HEREDITARY FRIEDREICH'S ATAXY.

DR. HECTOR MACKENZIE records in the *American Journal of the Medical Sciences* an isolated case of this character occurring in a family otherwise apparently healthy. The patient was a child aged thirteen years, who had measles when seven. After this she became weak on her legs, and although she was fairly intelligent she had difficulty in carrying out the finer movements of the hands, such as those necessary for writing or sewing. She was healthy-looking, but unsteady, clumsy, and jerky, and as she walked she rolled from side to side. The swaying and unsteadiness were especially marked when she turned round. There were jerky movements of the head and arms and a certain amount of ataxy in the hands. The knee-jerks were absent, but the pupils reacted normally, and the ophthalmoscope revealed nothing unusual. Distinct nystagmus was present on deviation to either side. There was a well-marked lateral curvature of the spine, with its convexity to the right. As has been already indicated, the family history showed no neurotic taint. Both parents and two brothers and five sisters were alive and said to be in good health. The case is somewhat unusual in being the only one in a large family.

THE FUTURE WATER-SUPPLY OF WORTHING.

COMMENDABLY rapid progress has been made at Worthing towards the erection of waterworks upon one of the three sites which, after a protracted survey, Mr. Baldwin Latham was led to select some time ago as likely to yield a pure and adequate supply of water to the town. The positions pointed out by this engineer were described in an annotation in THE LANCET of April 14th, but of course it was soon found that it is one thing to discover a suitable site and quite another to secure it advantageously. Failure to negotiate satisfactorily with landowners is not the least troublesome factor which municipal authorities have to face when seeking a new supply of water, but the Worthing town council, although they experienced a few deadlocks, have been singularly fortunate in this respect, owing largely to the prompt action and spirited interest for the people's good which the Mayor (Mr. Alderman Piper) has all along evinced. A site near to that marked A in Mr. Latham's report has been secured and purchased under conditions which, it is felt, will give general satisfaction. The boring operations have already been started upon a rising stretch of ground, which we visited a few weeks since, 200 yards nearer the downs to the north of Site A. It is situated to the north-north-west of the parish of

Broadwater, about half a mile distant from the boreholes, which are north-east of Broadwater, and which at the present time serve temporarily to supply the town. There is a pure and abundant supply of water from this temporary source—a source which was placed most generously, and in a time of the utmost need, at the disposal of the authorities by Mr. Harrison, with permission to use his property as freely as occasion demanded—and the new borings will draw upon the same supply, but at a point nearer to and higher up the slope towards the downs. At the present time the pumps at the temporary source are lifting over 27,000 gallons per hour. It is calculated that the new site will yield at least, and probably more than, 2,000,000 gallons a day, even in a low-water period. The water will be elevated to reservoirs situated close by on the downs, so that a constant high-pressure supply will be maintained in the services of the town. That a pure water-supply is one of the necessities of healthy existence is an axiom which the people of Worthing are not likely to forget, and they will be grateful to those whom they have placed in authority for the promptitude of their action and energy to restore the town to a degree of sanitary efficiency which there is every reason to believe will by next season compare most favourably and satisfactorily with other towns on our coast which are known prominently as clean and healthy places.

THE RECENT UNSEASONABLE WEATHER.

COLD and stormy weather, with a good deal of rain, has characterised a period which is generally regarded as early "summer," and as yet there appears no certain prospect of improvement. Perhaps, however, it is, after all, our ignorance to speak thus regretfully of what we call the unseasonable weather of May. Fortunately wet and cold cannot as yet be said to have inflicted very serious damage upon the produce of agriculture. Neither has the weather which we are prone to execrate for its discomfort proved an unmixed evil in its relation to the general health. As compared with the same period of last year it shows, indeed, a marked increase in the prevalence of zymotic diseases, but a diminution almost as great as regards those which affect the respiratory organs. The reappearance of cholera in Poland, and its presence so near to our own shores as Brittany, are facts which under existing circumstances cannot be regarded without much uneasiness. On this ground it is, no less than in the interest of rural tillage, that we would hope that the unusually wet and stormy days with which the present month began will prove to be the springlike harbingers of a period of dry and warm weather. Meanwhile the rule is uncertainty, and our best method of self-management will consist in the practice of cautious distrust in regard to changes of clothing, and whatever else has to do with the exposure of the person, not forgetting, of course, what is due to rational ventilation.

THE DIFFUSION OF SMALL-POX.

THE reports that have come to hand from various centres concerning the prevalence of small-pox last week show that the disease has attacked not only those places which have suffered for several weeks past, but that it exhibits a tendency to wider dissemination. In London there were 48 new cases in the week, with 4 deaths—1 each in Hackney, Limehouse, Mile-end, and Poplar; in West Ham continued diminution was witnessed, there being only 12 cases newly arising, but three deaths were registered. The admissions to London hospitals in the week numbered 58, and there were 232 patients under treatment in the institutions of the Metropolitan Asylums Board last Saturday, in addition to 12 in Highgate Small-pox Hospital, making a total of 244, against 236 a week earlier. The serious outbreak of some weeks ago in the Brentwood Lunatic Asylum has now been stamped out, and patients are again being admitted, but only on production of a medical certificate to the effect that they are free from all contagious and infectious disease, and that infectious disease does not exist in the house whence they come. The visiting restrictions are also considerably relaxed. In Staffordshire the sanitary authority at Willenhall are now doing battle against a serious prevalence of small-pox, the records of last week being the heaviest yet experienced, as many as 50 cases coming to knowledge by Thursday night. Revaccination is being strenuously urged upon the populace and the hospital is being pushed on with all practicable speed. It is hoped to have it in actual readiness on Monday next. The admissions to the Birmingham City Small-pox Hospital last week were 54 in number; 3 deaths were registered, and 179 patients remained in the institution. The Aston Manor local board have admitted 18 cases to hospital in the past five weeks and have discharged double that number. At Smethwick only 5 cases were heard of in the week. A case of small-pox has been reported to the Bridgnorth rural sanitary authority as having been imported into Worfield from Birmingham in the person of a domestic servant. Wolverhampton and Worcester were each invaded last week, and the disease has once again been imported into Leicester by a tramp, this making the twelfth invasion during the past two years by members of the nomadic classes. Manchester was heavily visited last week, no fewer than 39 cases being recorded, whilst Salford had 4 and Bury 7 cases. Several other towns in Lancashire and Yorkshire report invasion, Leeds having in recent weeks shown some small tendency to increase of the disease. One death was registered at Liverpool and 1 at Bradford. In Scotland the outbreak at Leith constitutes the most serious feature, there having been 18 fresh cases notified, following on the 61 notifications of the previous week. The town council have been invited to a conference on the subject by the sanitary body in Edinburgh, and the much-vexed question of the adoption of the Notification Act has been set down for fresh discussion this week. We await information concerning the result of this reconsideration with much interest. Meanwhile the sanitary staff has been largely increased. No case of small-pox was heard of in Glasgow during the last half of May, but the disease continues at Coatbridge, where 17 patients were under treatment at the end of the month, and the temporary hospital was full. Additional beds are to be provided for.

WHAT IS AN "OPEN SHOP"?

MANY questions, each of which at first sight seems to admit of only one simple answer, become extremely interesting and complicated when submitted to the fine distinctions of the English law. The difficulty of deciding what is an "open shop" has been lately brought up to the Court of Queen's Bench on appeal from a judgment given at the Exeter County Court. The Pharmaceutical Society sued for penalties incurred by a watchmaker for keeping an open shop for the retailing, dispensing, or compounding of poison. "Hornsey's Devonshire Specific" is admitted to contain a considerable quantity of corrosive sublimate. The defendant, a repairer of watches and clocks, is, of course, not a registered chemist and druggist, and, therefore, would appear to be liable for the penalties claimed. The term "open shop," however, appeared to puzzle the learned judge who tried the case at Exeter, and he held that the defendant kept an open shop for the repair of clocks and watches, but that with respect to the sale of his specific he had nothing to show, inside or outside his premises, that he dealt in such an article. He made up an old family recipe and sold it to those persons who applied for it. It would be interesting to follow this curious argument to its logical conclusion, and to learn what view would be taken by the Excise authorities if, for instance, a watchmaker sold spirits without a licence. The judge's ruling was that

an "open shop" implied publicity—a "notice to the public that the particular business was being carried on and an invitation to them to take part in it." In fact, as stated at the appeal, as he did not show upon the external part of the shop that he sold poison within the shop, he did not "keep an open shop for the retailing.....of poisons" within the Pharmacy Act, 1868. The "open shop" did not appear to trouble the judges at the Court of Appeal. Mr. Justice Cave said "the defendant kept a shop and in the shop retailed poison. He used the shop for retailing poison, and anyone was at liberty to go into the shop to ask for it, and would have been served. I cannot understand what a retailing of poison is if that is not." Judgment was accordingly given for the Pharmaceutical Society. The result is so far satisfactory, and the society must be congratulated, since the ruling of the county court judge would have debarred actions against grocers and others who retail poisons without placards to notify the fact.

QUININE AND METHYLENE BLUE IN MALARIA.

DR. ROSIN,[1] in investigating this subject, starts by assuming that changes of form on the part of the plasmodia or movements of the nuclei are evidence of life in the organisms. He placed blood from a patient with tertian ague, in which plasmodia were plentiful, under the microscope, and added a solution of quinine (1 in 5000). The drug did not seem to have the least effect on the movements of the organisms or their nuclei; in fact, ten hours after the addition of the quinine Dr. Rosin was able to demonstrate active movements of the nuclei, although the red corpuscles had undergone considerable change owing to the dilution of the blood. Under these circumstances it is difficult to account for the action of quinine in malaria, but Dr. Rosin suggests that it is in some way supported by other substances, due perhaps to chemical action, with which we are as yet unacquainted. With methylene blue the result was different. This substance is only absorbed into the blood in very small quantities, for if only moderate doses are administered it can at once be detected in the stools. Dr. Rosin, therefore, only employed a solution (normal saline solution) of about 1 in 20,000. Immediately this very dilute solution was added to the blood all movement in the majority of the plasmodia ceased, and no further change could be detected in the nuclei, and, in addition, the parasites immediately began to take up the colouring matter. The great affinity of the living organisms for the stain is remarkable, for although in mass a distinct bluish tinge could be detected in the solution, yet in thin layers it appeared perfectly colourless. The addition of the stain also brought into view numerous organisms which had been before invisible. The action of methylene blue in malaria would, therefore, seem to be germicidal, not chemical.

REFLEXES IN SPINAL CORD LESIONS.

IN an article in the *Medical Chronicle* Dr. Ernest Reynolds makes a contribution to this question of much interest. It is only within the last few years that particular attention has been given to this subject, thanks chiefly to the labours of Dr. Charlton Bastian, Dr. Hughlings Jackson, Dr. Thorburn, Dr. Bowlby, and others, and now it is fairly well recognised and accepted as a clinical fact, whatever the interpretation may be, that in cases of complete transverse lesion of the spinal cord the knee-jerks are lost. But Dr. E. Reynolds's paper deals with another aspect of the question, which has apparently been presented as a corollary to the fact mentioned—viz., that when a spinal cord lesion causes complete paralysis and loss of sensation of the legs the deep reflexes are always lost. This, according to Dr. E. Reynolds, is distinctly stated by Dr. Thorburn, and Dr. Bastian apparently looked upon a case in which it did not hold good as a unique one. This view, however, Dr. E. Reynolds does not hold, and in reference to it he gives particulars of two cases. In the first case, that of a labourer aged thirty-nine, who fell and injured his back, there were total paralysis of sensation and motion in the legs, a flaccid condition of the muscles, and absence of knee-jerks with increased superficial reflexes. The second case was that of a girl aged thirteen with marked spinal curvature, total paralysis of sensation and motion in the legs, with marked exaggeration of the knee-jerks, ankle-clonus, and increased superficial reflexes. Of course it might be argued that such cases, the actual condition of the spinal cord not being known, prove nothing, but, as Dr. E. Reynolds points out, they certainly show that with injury or disease of the spinal cord producing total loss of sensation and motion of the lower limbs there is not necessarily a flaccid paralysis of the legs or an absence of the reflexes.

[1] Deutsche Medicinische Wochenschrift, No. 44, 1893.

ST. MARY'S HOSPITAL.

THE festival dinner of St. Mary's Hospital was held at the Whitehall Rooms of the Hôtel Métropole on Friday, June 1st. His Royal Highness the Duke of York, who presided, pleaded earnestly for funds to enable the institution to carry on the work, begun fifty-two years ago, of relieving the sick poor in a densely populated neighbourhood. "Bed for bed," said his Royal Highness, "St. Mary's Hospital does more work than any hospital in London possessing a medical school, and the average cost per bed is under that of any of the large institutions of a similar nature." St. Mary's, however, like many other hospitals, is unable to keep pace with the rapid growth of the population, and many who are in need of medical aid are reluctantly turned from its doors. The out-patients' department has long been totally inadequate both from its size and from the bad ventilating and heating arrangements. The Prince of Wales in 1892 laid the foundation-stone of the Clarence Wing, the ground floor of which was to be occupied by a new out-patients' department, but want of funds has prevented the completion of the work. A sum of £12,000 is still needed before the work of constructing this department can be proceeded with, and the work of the hospital is thus seriously hindered. Added to this, £7000 is required to replace a sum which had to be withdrawn from the funds to meet a deficit incurred last year when the work done by the hospital exceeded that of any previous year, and the hospital is worse off than it has been for the past ten years. During the evening subscriptions to the amount of £5282 10s. were announced, including 25 guineas from the chairman, £200 from Mrs. E. Moore, £100 from Sir Wm. Broadbent, and 5 guineas from Cardinal Vaughan.

DOUBLE FACIAL PALSY.

TWO cases of this very unusual and troublesome condition, published by Dr. Moninzko, are referred to in a recent number of the *Revue Neurologique*. The first case was that of a patient aged twenty-five, without any neurotic history, in whom the affection had appeared three months after he had suffered from a chancre. The condition was preceded by severe pain in the head, and this was followed by difficulty in deglutition and inability to smile, to whistle, and to close the eyes. There was complete absence of any emotional expression, and taste was affected in the anterior part of the tongue on both sides, while the reaction of degeneration was present in all the muscles of the face. Anti-syphilitic remedies, combined with electrical treatment, were employed, and were followed in about eight months by an almost complete disappearance of the paralysis. The second case was somewhat different in its history. The patient was twenty-three years of age, and had suffered from small-pox, severe headaches, and, more recently, granular conjunctivitis. Two months previously he had had violent pains on the right

side of the neck, and these were followed by paralysis of the same side of the face. Three weeks later, similar pains were experienced on the left side, and these were followed by paralysis on the corresponding side, so that there was established a condition of complete double facial paralysis. There is also stated to have been paralysis of both sides of the palate, more marked on the right side, and the articulation was indistinct and nasal. This case also had a favourable termination. In the course of four or five months there was already a return of movement in all the paralysed muscles. The complete paralysis of the palate in this case certainly places it in a different category from ordinary cases of facial paralysis, and we should be inclined to think that there was something more in the case than merely a peripheral affection of the facial nerve on each side.

THE ELECTION OF CORONER FOR NORTH-EAST LONDON.

AT a meeting of the London County Council on Tuesday last Dr. W. Wynn Westcott was elected coroner for the north-eastern district at a salary of £1150 a year. There were originally forty-nine candidates, from whom the Public Control Committee of the Council recommended the names of Dr. W. Wynn Westcott, Dr. Charles Gross, and Dr. F. H. Daly—Dr. Westcott, as we have said, being finally appointed. We are pleased to see that the London County Council recognise the importance of the selection of medical coroners, and trust that the other elective bodies will follow their example.

LEAFLETS ON VACCINATION.

THE anti-vaccinators, whatever else may be said of them, are by no means desultory in the propagation of their sentiments, and we are extremely pleased to see that in the matter of popular literature the Public Health Committee of Islington have determined to carry the war into the enemy's camp, and to cause to be distributed leaflets drawn up by the medical officer of health of the district, setting forth in plain language some of the facts in regard to vaccination and small-pox. In this leaflet Mr. Harris deals first with small-pox among the unvaccinated, and draws attention to the terrible mortality occasioned by the disease in pre-vaccination times. He refers to the ravages of the disease in Mexico and among the North American Indians, and quotes a passage from Lord Macaulay's writings as to the effects of the disease in the seventeeth century on those who survived an attack, how that it left "in those whose lives it spared, the hideous traces of its power, turning the babe into a changeling at whom the mother shuddered, and making the eyes and cheeks of the betrothed maiden objects of horror to the lover." In discussing the power of vaccination in its relation to small-pox, Mr. Harris quotes Dr. Gayton's well-known tables in reference to the protective value of one and more vaccine cicatrices; and in dealing with revaccination the facts as regards the army and navy are given, as also are those as to the immunity of the nurses and attendants at the London Small-pox Hospital and the hospitals of the Metropolitan Asylums Board. Finally Mr. Harris urges the public to have their vaccination marks, both on themselves and their children, examined by their medical attendant, in order that those with defective or too few cicatrices may be immediately revaccinated. This advice will, we hope, be widely followed in Islington, and if it results in gradually educating the public as to the necessity of multiple as opposed to single cicatrices, it will have additional value. Mr. Harris also recommends revaccination of all persons over fifteen years old, when small-pox is present. Having regard, however, to the danger which very mild and abortive attacks of small-pox, consisting only perhaps of a few papules, present to the unprotected community, it would perhaps have been wiser had the ages, as set forth in the Order of the Local Government Board of Feb. 3rd, 1888, been taken as a basis. This order enacts that one of the conditions under which revaccination may legally be performed by a public vaccinator is that the applicant shall have attained the age of twelve years, or in case there be any immediate danger of small-pox, the age of ten years.

MR. GLADSTONE'S HEALTH.

WE are glad to be able to state that Mr. Gladstone has so far made an uninterrupted progress towards recovery. He has been able to take carriage exercise since the 3rd inst., and is downstairs for as much of the day as he likes. The eye is as well as possible. It is needless to say that every possible precaution has been taken; in fact, the details of treatment and management of the case have, we believe, been carried out unusually strictly.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

WE have received a copy of the Act to Amend the Constitution of the Royal Medical Benevolent College. For many years a scheme proposed by Dr. Holman, which has received the hearty support of the members of the medical profession, has been steadily advancing towards realisation. All who have had the interest of Epsom College in view and have desired the extension of the sphere of its usefulness must be greatly gratified to learn that the Council have obtained an Act amending the conditions under which the College was originally established in 1855. The buildings so long occupied by pensioners can now be legally used for educational purposes and the College is now under no obligation to provide asylum for the pensioners. Further, the new Act empowers the College to make rules for the pensions by the provision of annuities or occasional pecuniary assistance. All that now remains to be done in order to carry out what is known as the "Pension Scheme" is the collection of the necessary funds. When this has been accomplished the poor aged recipients of this charity will be enabled to reside with their friends and receive, in place of asylum accommodation, an increase in the amount of their pension. These changes were, in the first instance, necessitated by the rapid growth in the numbers of the College scholars and its continually increasing reputation as an education centre. The new Act places Epsom College on the footing of the great English public schools, enabling it to present an open door to pupils of all classes. It is a matter of experience that but small success waits upon class schools of any sort. Moreover, all the privileges which Epsom College, by reason of its medical foundation, had to bestow upon its foundationers are by this new Act carefully maintained, and the sons of medical men will, as heretofore, receive an education at as near prime cost as possible, so long as this is consistent with efficiency.

THE INFLUENCE OF MOISTURE ON CHEMICAL ACTION.

IN a remarkable series of experiments Mr. Brereton Baker has shown that when moisture is removed as completely as possible certain substances—for example, carbon, sulphur, phosphorus—can be heated in an atmosphere of oxygen without undergoing visible combustion. Continuing the study of this interesting branch of investigation, he subsequently found that dry ammonia gas and dry hydrochloric acid gas refused to combine—that is, no ammonium chloride fumes were produced when the dried gases were mixed; but on introducing a small quantity of moist air union of the two, with formation of ammonium chloride, instantly takes place. Further investigations were made

and the results communicated to the Chemical Society at the last ordinary meeting held on May 17th. It was found that sulphur trioxide (SO_3) does not combine with highly purified lime, but that a trace of moisture brings about rapid combination, accompanied with vivid incandescence. Similarly, dry copper oxide is without action on sulphur trioxide; and, again, purified and dried lime does not decompose dried ammonium chloride, which indeed may be sublimed from the mixture without evolving any ammonia. Purified and dried nitric oxide (NO_2) gives no brown fumes with dried oxygen, but a trace of moist air causes them to appear at once. It was also ascertained that a mixture of purified and dried hydrogen and chlorine can be exposed to daylight for four days without more than three-fourths of the gases combining. The writer seeks an explanation in an electro-chemical hypothesis, in favour of which he referred to the fact that electric discharge, when not of high tension, will not pass in dried gases, whereas the high tension discharge does pass and renders it possible for the low tension discharge to pass afterwards. With regard to the influence of moisture it appears, therefore, that what holds for chemical combination holds also for electrical discharge, and that there is a great significance in the apparent similarity in the two cases. Dr. Armstrong, in recognising the value of the results as being calculated to convince all of the important influence exercised by moisture in promoting very many chemical changes, said that he had long been satisfied that the presence of an electrolyte was essential to every chemical change, and that water was of service in this regard because it gave rise to an electrolyte—i.e., a compound which is decomposed by the passage through it of an electric current. In view of the remarkable influence which moisture is seen to exert in accomplishing chemical reaction, it will be interesting to learn, as Dr. Armstrong suggested, whether other substances besides water would serve as electrolytes in coöperating to produce chemical change. We believe this subject is being investigated by Mr. Baker and also by Mr. Shenstone, whose researches on the condition of the formation of ozone are well known.

THE SOCIETY OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

WE have already announced[1] that a branch executive council in connexion with the Society of Fellows in London has been formed at Manchester. A paragraph, however, in the *Manchester Guardian* contains so definite a statement concerning the objects and policy of the association, no doubt emanating from an authoritative source, that we think it of sufficient importance to quote it for the information of those who have been in doubt concerning the *rôle* which the Society was likely to assume in regard to college politics. This statement runs as follows:—"In view of the two annual meetings of Fellows now arranged for by the council, a Society of Fellows of the Royal College of Surgeons of England was recently inaugurated with the object of ascertaining by conference and otherwise the opinion of the general body of Fellows on any subject which may properly be brought forward at the official meetings of the College. Having in such manner received their mandate the executive will, in addition, take such steps as from time to time seem best calculated to promote the interests of the College. By this means it is hoped that the Fellows may be better enabled to exert their influence and take their rightful share in the management of the College. *No specific line of policy will be pursued.*" The italics are our own and are used to emphasise the most important statement concerning the society which has yet emanated from its promoters. It would follow from this fundamental principle of the new society—not to follow any specific line of policy—that the society is an institution of a neutral character, which will rather follow than lead opinion among the Fellows, and concern itself rather in promoting the discussion of subjects at the meetings of Fellows at the College than in carrying the reforms which are needed to make the College more useful to the Fellows and Members and the profession at large.

[1] THE LANCET, May 19th, 1894.

THE Society of Physicians and Nature Students of Germany hold their sixty-sixth anniversary in Vienna from the 24th to the 30th of September next. Among the many who will take part in the celebration may be mentioned Professors Helmholtz and Leyden of Berlin and Forel of Zurich. The sections into which the ordinary business of the society is divided will, on this occasion, be headed by Viennese *savants*, such as Gustav Tschermak (Rector of the University), Nothnagel, Wiederhofer, Krafft-Ebing, and Politzer. For the expenses of the celebration the Austrian Government has voted 10,000 florins; while the municipality gives a grand reception on the 27th. A ladies' committee, organised for the entertainment and general convenience of their foreign sisters, is already working in coöperation with the central committee; and no effort will be wanting to make the anniversary worthy of the noble society whose sixty-sixth birthday it commemorates.

OUR attention has been called by Messrs. Oppenheimer, Son, and Co, Limited, to the fact that in our list of the names of the different firms who received gold medals at the recent Exhibition of Hygiene in connexion with the International Medical Congress, as given in our issue of May 26th, we have omitted to notify the fact that their firm was a recipient of the honour. We may point out, however, that we made this announcement in our issue of May 19th.

IN connexion with the recent foundation of a Research Fellowship in Chemical Pharmacology by the Court of the Salters' Company, the Research Committee of the Pharmaceutical Society announces in the *Pharmaceutical Journal* that the selection of the Salters' Company's Research Fellow will take place on July 3rd next. Written applications for the Fellowship must be received by the Director of the Research Laboratory, 17, Bloomsbury-square, before June 30th.

THE Poplar Hospital for Accidents, which has lately been rebuilt at a cost of £30,000, will be opened on Monday, June 11th, by their Royal Highnesses the Prince and Princess of Wales. The Princesses Victoria and Maud, the Duke of York, and the Archbishop of Canterbury will also be present.

THE REGISTRAR-GENERAL'S REPORT FOR 1892.

THE fifty-fifth annual report of the Registrar-General of England has reached us. Compared with the period at which the annual reports have been issued in previous years this report is four months overdue; the delay, however, will occasion little surprise when the fact is remembered that the present statistical superintendent did not take office until late in the year 1893. The document before us, like its many predecessors, contains abundant matter for reflection; and as it deals with the progress of mortality generally, and especially of preventable mortality throughout England and Wales during the year 1892, we have thought it desirable to give a summary of its more salient points for the information of our readers.

In the year 1892 the mortality from all causes throughout England and Wales did not exceed 19·0 per 1000 of the estimated population. It was lower than the exceptionally high rate of the year 1891 by 1·2 per 1000, although the influenza epidemic, which is believed to have been the chief

cause of the excessive mortality in that year, had by no means disappeared from our midst by the end of 1892.

Turning now to the causes of mortality which are sanitarily the most important—the preventable diseases, we find that the deaths from the zymotic class of complaints in the aggregate, which had steadily increased within the preceding five years from 2·13 to 2·71 per 1000 living, further increased to 2·79 per 1000 in the year 1892. Amongst the more common infectious diseases, enteric fever and whooping-cough were less fatal in 1892 than the average, but the life saving under these heads was more than counterbalanced by a markedly augmented mortality from measles, scarlet fever, diphtheria, and diarrhœal diseases. After three years of practical immunity from fatal small-pox we are told that the deaths from this disease in 1892 suddenly rose to 431, being equal to a rate of 15 per million of the population. As regards the effect of vaccination in controlling fatality amongst small-pox patients the official records seem to render but a poor account, for in not less than 62 per cent. of the fatal cases no statement was contained in the certificates as to the condition of the patients in respect of vaccination. The Registrar-General expresses "regret that medical men still continue to neglect in so large a proportion of these cases to give this very desirable item of information." It appears that the type of scarlet fever was again very mild in the year 1892; if anything, it was milder than it had been in the preceding five years. The relative fatality amongst the cases admitted to the London hospitals did not exceed 6·4 per cent., as compared with 8·6 per cent. in the years 1887–91. Not less than 69 per cent. of the total deaths from scarlet fever in London during 1892 occurred in hospitals or other public institutions. Diphtheria is the only other common infectious disease that showed excessive prevalence during the year. This disease accounted for a mortality equal to 222 per million of the population, a ratio which has never been approached in any previous year since 1864. Diphtheria appears to have been more fatal in 1892 than in either of the two preceding years, and, judging from the figures with which the Registrar-General is provisionally supplied from local sources, a still more serious rise must have taken place in the year 1893. As had been the case in the preceding two years, the year 1892 was marked by severe prevalence of influenza, which was accompanied by great increase in the mortality from respiratory diseases. In order to trace as accurately as may be the course of the influenza epidemic the expedient has been adopted in the report before us of dividing the country into three sections or groups of registration divisions, the central group representing London, and the other two groups respectively the northern and southern counties of England and Wales. In this way certain of the more important facts connected with the epidemic have been brought out with great clearness.

It appears that the influenza epidemic commenced in the great towns, where it practically exhausted itself in 1890 and 1891; the disease spread more slowly in the country districts, where it took longer to die out. This impression is strengthened by examination of the death-rates in the separate quarters. Thus, there was a sudden and remarkable rise of the mortality in the first quarter of 1890, which affected the urban districts more than the rural. A second rise began in the last quarter of 1890, was perceptible in the first quarter of 1891, and became serious in the second quarter of that year. Consideration of the death-rates in successive quarters suggests that this rise either began earlier, or was more severe at its commencement, in the urban than in the rural districts. The third great rise in mortality was in the first quarter of 1892, and this time the rural districts showed an enormous excess, their death-rate for the first time on record exceeding the rate in the urban districts. The first outbreak of influenza, which occurred early in 1890, was specially fatal in London and in certain of the northern provincial towns. The second and far more serious outbreak, in the second quarter of 1891, again attacked London and the large provincial towns. The third outbreak, in the first quarter of 1892, affected London to about the same extent that the first outbreak had done; but it affected the southern counties of England, and especially their rural parts, with very great severity. In his report for the year 1891 Dr. Ogle had published an estimate of the probable loss of life due to influenza in 1890 and 1891, based on the excess of mortality at ages above thirty-five in those years as compared with the decennial average. In the report before us another estimate of the loss of life has been framed, based on the excess of mortality by influenza and respiratory diseases in the three years 1890–92. According to the more recent estimate it appears probable that the actual mortality due to influenza in England and Wales during the above-mentioned three years was not less than 110 000, and it is at least possible that it considerably exceeded this number. In the nature of the case any such estimate must, of course, be largely conjectural, since we have no means of knowing what the mortality from respiratory diseases &c. would have been had there been no epidemic of influenza. Certain general considerations, however, lead to the conclusion that the above is by no means an excessive estimate. In the first place, the first outbreak occurred in a quarter of the year which was exceptionally mild for the season and therefore unlikely to be marked by special prevalence of lung diseases; and the second outbreak attained its greatest severity during a season when the mortality from chest complaints is normally low. In the second place the mortality from the principal zymotic diseases, including diarrhœa (these being the chief causes, other than respiratory diseases, of annual fluctuations of mortality), was lower in the years 1890–92 than in 1889, which latter may be taken as a year of normal respiratory mortality. In the third place, many deaths which were in reality due to the epidemic were doubtlessly ascribed to diseases of the nervous circulatory and other systems, in addition to those referred to diseases of the organs of respiration.

We have not space for further excerpts from this interesting report: we have by no means exhausted a tithe of the useful information it contains, and for the rest we must refer our readers to the report itself, which is published by Messrs. Eyre and Spottiswoode.

THE LOCAL GOVERNMENT (SCOTLAND) BILL.

THE rapid growth of interest in local government in general, and in public health administration in particular, is strikingly shown by the well-maintained and thoroughly competent discussion which has taken place in the Scotch Grand Committee regarding the constitution of the proposed Local Government Board for Scotland. Indeed, with regard to this Bill, so far as the discussion has yet gone, there has been, as we ventured to hope, an admirable absence of party spirit—Liberals and Conservatives, Home Rulers and Unionists seeming for a time to have sunk all their differences in the desire to constitute a perfect central board for the supervision of Poor-law and public health in the northern kingdom. The general result of the deliberations has been that by fair majorities the original proposals of Sir George Trevelyan have been agreed to. As regards the three nominated members, the board is to be an official board, and its representative character is to depend on its inclusion of the Secretary for Scotland and the Solicitor-General. Much debate took place as to whether the lawyer and the medical man, who were recognised on all hands as being necessary to the central administration, should be members of the board, or merely officials, and in the end it was decided that they should hold the former position. Sir Charles Cameron and Dr. Farquharson and Mr. MacGregor were alike strenuous in urging that if the board were to have a legal member it should also have a medical member, and the thanks of the profession are due to them for their advocacy of this principle. It would have been little short of an insult to the medical profession to have retained a sheriff or advocate as a member of the board and to have subordinated to him the medical head of the public health administration of Scotland. From a theoretical standpoint it is open to argument that both the lawyer and the medical practitioner would be quite as useful under the title of law officer and medical officer as they would be with the added right to sit and vote at the board's meetings. On a question of the interpretation of a clause in an Act of Parliament the medical man's opinion will be of no more real value than that of an ordinary layman, and on a question of the interpretation to be put on the chemical and bacteriological analyses of a public water-supply the lawyer's opinion will be entirely useless, while in the board, as proposed to be constituted, the medical man will have the right to speak and vote on the legal point and the lawyer will have the right to speak and vote on the medical point. On grounds like these the constitution of the board may be objected to, but in such a matter experience is probably

better than theory. The Scotch Local Government Board is to be constituted almost identically on the lines of the existing Irish board, excepting that while the Irish Act specifies the appointment of a medical member in addition to the vice-president, the third member of the Dublin triumvirate does not require to be a lawyer. In practice this board has been a very decided success, and the requirements of Scotland resemble those of Ireland in respect that the working department cannot conveniently have its seat in London, but must have its connexion therewith by means of the *ex-officio* members. Regarding the appointment both of lawyer and medical man the field for selection by the Secretary for Scotland has been somewhat widened. The lawyer will not require to be a sheriff, and the medical man, provided he has had lengthened experience as a medical officer of health in a large district, will not require to hold a diploma in public health. Both of these alterations are improvements. In our former article on the subject it was pointed out that in Subsection 3 of Clause 6, which gave the board power to appoint "inspectors, clerks, and other officers," medical inspectors were not specifically mentioned, and that, as a matter of fact, the board of supervision never had made such appointments. We are glad to observe that, on the motion of Mr. Parker Smith, the subsection has been amended so as to include "assistant medical officers," but seeing that the principal medical man is to be a member and not an officer of the board, the word "assistant" does not appear to be required, if, indeed, it is not meaningless.

One of the most important enactments of the Bill, and one the full bearing of which has not yet, perhaps, been fully grasped, is contained in Clause 63, which deals with the "duties of county medical officer and sanitary inspector in police burghs." It is here proposed that in future police burghs shall have the right to complain to the central authority if the services of the county officials are not "reasonably available" by the police burghs, and that in such cases the board, after inquiry, may relieve police burghs of any liability to contribute to the salaries of the county officers. The clause is designed to remedy a defect in the existing Local Government Act, but the cure is perhaps more dangerous than the disease. It would surely be better that police burghs should have the right to insist on reasonable service by the county officials rather than that they should cut themselves adrift entirely from the county public health administration. In Scotland, in most counties, police burghs differ from non-burghal districts in the fact that the former have local medical officers of health of their own, while the latter depend entirely on the work of the county officials. The result has been that these officers have found abundant scope for their energies outside the burghs and have practically left the control of intra-burghal sanitation in the hands of the local officers. Perhaps they may have been partly influenced towards this course of conduct by a desire to avoid friction with their brethren in the burghs; but in England we have heard very little of friction between county and local medical officers, and if the English system were followed it is not easy to see why in Scotland there should be any fear of unpleasantness. The English system, of course, is that the county medical officer does not administer the Public Health Acts, but takes the position rather of adviser or consultant. In Scotland, in the absence of local medical officers for the rural districts, the county officials must act not only as advisers, but administrators. In the police burghs, however, there seems no good reason why they should not have duties similar to those of the English county officers—duties, that is to say, not of administration, but of advice and consultation. On the one hand, the police burghs should have the right to call in their assistance when required, and, on the other hand, the county officers should have the right of entry to police burghs and of inquiry as to the manner in which their public health duties are being carried out, in order that they may be able to represent, either to the county councils or to the Local Government Board, the existence of sanitary deficiencies dangerous, perhaps, not only to the residents within the burghs, but to the surrounding populations. In Scottish counties there are two sources from which official salaries may be paid: (1) what is called the "general purposes fund," assessed alike on rural districts and police burghs; and (2) the public health rate, which the county council assesses only on the rural districts. In addition, the police burghs have a public health rate of their own. It should not be impossible to draft a clause providing that one part—say a half or two-thirds—of the county public health officials' salaries should be held to represent their administrative duties performed in the rural districts alone, and therefore payable out of the public health rate alone; while the remaining half or one-third of their salaries should be held to represent their advisory or consultative work, and should therefore be paid out of the general purposes fund. The effect of this would not be to saddle police burghs alone with this latter part of the salaries. They would contribute to it along with the rural districts according to their valuation, and in most counties the valuation of the rural districts so far exceeds that of the police burghs that the contribution of the burghs would actually be very trifling. At the same time the tendency of the arrangement would be to bind together the sanitary administration of the small burghs and of the county, so that there would be attained some approach to uniformity in the carrying out of the Public Health Acts in the two classes of population, and that in times of common danger from epidemic disease common methods of meeting the danger would most likely be adopted. The medical officers of small burghs, receiving £5 or £10 annually for their services, would not be likely to object to having their hands strengthened by consultation with, and support of, their colleagues in the counties. In conclusion, we have again to call attention to the great importance of adding to the Bill as it at present stands a general power to frame building regulations for rural districts.

THE JULY CONSULTATIVE MEETING OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

IN accordance with the recent regulations of the Council of the Royal College of Surgeons of England, notices have been issued to the Fellows of the College that a meeting of Fellows will be held in the theatre of the College on July 5th, at 5 P.M. The official business is set forth in the notice paper and comprises the following matters: 1. To read the minutes of the extraordinary meeting of Fellows on March 19th last. 2. To read Section XXIII. of the Regulations of the Council relating to meetings of Fellows. 3. The consideration of the changes which the Council propose to make in Section IV. of the by-laws relating to voting papers in the election of members of Council, and in Section XVI. of the by-laws relating to the misconduct of Fellows and Members. 4. The President, on behalf of the Council, to ask the views of the meeting upon the desirability or otherwise of a dinner, alternating with the Hunterian Festival, being given by the College to distinguish guests with the object of returning courtesies shown to the College through its president, and of helping the College to maintain its position among other great institutions. 5. The consideration of any motion which may be introduced by Fellows in accordance with Clause 6, Section XXIII., of the Regulations of the Council relating to meetings of Fellows.

Fellows desirous of bringing forward motions at the meetings of Fellows must bear in mind that motions to be introduced by Fellows must be signed by the intending mover, or by the mover and other Fellows, and must be received by the secretary not less than twenty-one days before the meeting. The last day, therefore, for the reception of notices of motion for the meeting on Thursday, July 5th, is Thursday, June 14th.

The alteration proposed to be effected in the by-law relating to voting papers is to provide for voting papers being sent unasked to every Fellow of the College whose address is known or registered at the College, and for their being returnable up to the hour appointed for the commencement of the election. The revision of the by-law relating to the misconduct of Fellows and Members will enable the Council to deal more effectively than hitherto with disgraceful professional conduct among Fellows and Members of the College. It has happened more than once that, owing to the defective powers conferred under the present by-law, the Council has been unable to remove from the list of Members the names of persons whose names had been already removed from the Medical Register by the General Medical Council under Section 29 of the Medical Act of 1858.

CHOLERA.

THERE is not much to be chronicled this week regarding the progress of cholera. The disease still prevails in Warsaw, where a few cases, many of them fatal, continue to occur daily, while from other places in the district 21 cases have recently been reported, and 6 cases and 3 deaths in the government of Radom. At Mlawa, in the government of Płock, there have been 28 cases and 16 deaths, but the outbreak so far appears to be of a very limited kind.

From Berlin we learn that a few cases of cholera have been reported in the Prussian town of Myslowitz, in Upper Silesia, near the Russian frontier. It is stated that this outbreak has been traced to Silbe, in the Russian district of Bendzin along the frontier river Przemsa, and that the traffic is being carefully watched and subjected to rigorous inspection. Some sporadic cases have also occurred on the Vistula, near Thorn; 2 raftsmen have been attacked and 1 died.

Sir Henry Roscoe called the attention of the Under Secretary of State for Foreign Affairs in the House of Commons on the 4th inst. to the alleged occurrence of cholera at Mecca, in connexion with the carrying out of the recommendations of the Paris Sanitary Conference. Sir E. Grey replied that, according to the latest intelligence from Mecca, the public health was good, and added that, although the Porte was represented at the Conference, its delegates did not sign the recommendations. Whilst upon this subject we may remark that the *Pioneer Mail* points out that the recommendations of the Sanitary Conference, in regard to the compulsory examination of pilgrims before leaving Bombay and the appointment of a qualified medical officer to accompany them on the voyage, must evidently have been made in ignorance of the fact that strict regulations in both these respects have been in force for a number of years past. Our contemporary also asserts that some statements which have appeared in this country relative to the annual dissemination of cholera by means of Indian pilgrim ships have long since been proved to have had absolutely no foundation in fact. It goes on to say that every year in the Haj season news comes of the outbreak of epidemic cholera at Camaran and the holy cities, and thousands die from the scourge; but hardly one case in a thousand has been conveyed from Indian ports.

ARMY MEDICAL REPORT FOR 1892.

[CONCLUDING NOTICE.[1]]

THE statistical returns and reports on the health of the troops serving in India occupy, of course, a large portion of the volume. We must pass over this section and content ourselves with a brief reference to a subject noticed in the report of the Principal Medical Officer, Bombay, which serves to illustrate the remarkable influence of local conditions on the production of malaria and the prevalence of ague. The medical officer in charge of the hospital at Steamer Point remarks that the whole establishment is probably unique amongst the hospitals of modern armies. The health of the station has been steadily deteriorating since 1889. The ratio of admissions per 1000 strength in that year was 1360; in 1890, 1517; in 1891, 2110; and in 1892, 2430. This great increase is almost entirely due to ague, the admissions for which have risen from 156 in 1889 to 1354 in 1892. Nor does this large number at all represent the real amount of that disease, for the milder cases attending hospital and taking quinine probably amount to several hundreds more. Several causes have been assigned in explanation of this increased prevalence of ague. Whatever the causes of the malaria may have been, they occurred at the Isthmus Position in their most violent and concentrated form.

The barracks, which had been abandoned in 1891 owing to the great prevalence of fever amongst the troops, were reoccupied by a detachment of the Liverpool Regiment, and in May every man there, including officers, their servants, and the native establishment, was attacked with ague. The Ordnance establishment had to be removed at the same time. At the end of October a company of the South Wales Borderers was sent there, and in the course of a few weeks all the men and officers were "down with ague." The troops were withdrawn on Nov. 15th, but during that month that company furnished 46 out of the total of 109 admissions from the whole garrison for ague, and in December 42 out of a total of 97.

Passing on to the British troops in Egypt, we find that the average strength of the force there in 1892 was 3102 non-commissioned officers and men. The following table shows the relative sickness in Cairo and Alexandria:—

Stations.	Average strength.	Admissions.	Deaths.	Ratios per 1000.	
				Admissions.	Deaths.
Cairo	2186	2063	18	943·7	8·23
Alexandria ..	916	1099	26	1199·8	28·38

These rates do not differ materially from those of the previous year, with the exception of the death-rate for Alexandria, which shows an increase of 24·97.

As regards the prevalence of enteric fever, this disease attained its greatest prevalence, as usual, in the autumn. It was by no means confined to young soldiers or to men recently arrived in the country. The insanitary condition of the native city, and especially of those quarters usually frequented by the men both at Cairo and Alexandria, are the alleged causes of the disease. The quality of the water at Alexandria is so well recognised that all the drinking water used by the troops is stated to be boiled and filtered before issue.

The relative sickness and mortality from this disease at the two stations is shown in the following table:—

Stations.	Average strength.	Admissions.	Deaths.	Constantly sick.	Ratios per 1000 strength.		
					Admissions.	Deaths.	Constantly sick.
Cairo	2186	32	10	5·54	14·6	4·57	2·53
Alexandria	916	77	22	14·44	84·1	24·02	15·76

The appendix to the army medical volume contains some interesting papers. The Professor of Military Hygiene, Brigade-Surgeon-Lieutenant-Colonel Notter, contributes a report on the progress of hygiene for the year 1893, in which he summarises the chief points which have attracted attention during that year. The sanitary legislation, literature, work of societies, special points of hygiene, and work in the laboratory at Netley are all passed in review. Brigade-Surgeon-Lieutenant-Colonel Stevenson, the Professor of Military Surgery at Netley, in conjunction with the Assistant Professor, Surgeon-Captain Whitehead, gives a list of the operations performed at the Royal Victoria Hospital during the year 1893, together with remarks on some of the operation cases. This is followed by a report on the proceedings of the seventh session of the French Congress of Surgery by the former officer.

Apropos of anæsthetics, the Professor of Military Surgery says that chloroform was used in all the operations he saw performed in the Paris hospitals; that ether, he was told, was seldom administered; and that it would seem the French surgeons and anæsthetists hold with the conclusions of the Hyderabad Commission, for they pointedly disregard the indications of danger which might be given by the pulse and only watched the patient's respiration. Everything surgical which the Professor of Military Surgery saw in Paris impressed him with the idea that the French surgeons strictly followed the Listerian method, and their army medical service was by no means behindhand in this matter. From the vast collection of hospital and medical and surgical *matériel* packed and ready for transport in "the docks" it is concluded that the French Army Medical Service is prepared for any emergency. One of the great reasons that this is so is that the officer responsible for the efficiency of that service has the spending of the money voted for its maintenance.

The next paper is a Medical Report on the Mission of Sir C. Euan-Smith to Fez in 1892 by Surgeon-Captain W. G. Macpherson. The mission to the Court of the Sultan of Morocco left Tangier on April 27th, 1892, and arrived in Fez

[1] The previous articles were published in THE LANCET of May 19th and June 2nd, 1894.

on May 12th, where it remained in quarters for two months, when the return journey to the coast was commenced. The report, which is of a medico-topographical nature, contains a number of facts and a variety of information personally observed and recorded at the time in a country about which very little information of a medical and scientific character has been published. There are no physicians or surgeons amongst the Moors; the part of the former is taken by the saints and witches, and that of the latter by the barbers. There are no end of diseases among the population, whose medical and social customs are primitive and barbarous to a degree, and strongly influenced by an admixture of Moslem fanaticism and superstition. The report is carefully drawn up and of an exhaustive kind, considering the limited time at the writer's disposal, but it does not readily lend itself to quotation and review. It is well worth reading and will no doubt be referred to hereafter when information is required about Morocco. Surgeon-Captain Morgan contributes a paper on the Prevalent Fevers of Alexandria, illustrated by a plan and six charts. This is followed by some notes and observations on Enteric Fever gleaned from experience in Mhow, Central India, by Surgeon-Major C. G D Mosse; and the Assistant Professor of Military Surgery at Netley, Surgeon-Captain H. R. Whitehead, F.R.C.S., contributes an excellent clinical lecture on the Influence of Myopia on Military Service, the tenour of which is to show that uncorrected myopia of even a comparatively slight degree is very undesirable from a military point of view, and this leads up to the consideration whether it is advisable to allow the soldier to use correcting lenses for this defect so as to be brought to a condition of emmetropia. In many of the Continental armies the use of spectacles is no bar to military service; but there are, nevertheless, several decided disadvantages in military life attending their use, and especially in our own army. Surgeon-Captain Whitehead discusses these, but points out at the same time that, in order to get the full value of a powerful weapon with a very long range like the Lee-Metford rifle which the State places in the hands of its soldiers, they must be practically emmetropic or possess only such an error of refraction as may be corrected by lenses of the weaker powers. The amount of myopia we should admit into the army still needs consideration.

THE SANITARY INSTITUTE.

DURING the course of lectures recently delivered at the Sanitary Institute on the Sanitation of Industries and Occupations two of more than ordinary interest were given: one by Professor Thomas Oliver on "Metallic Poisons—Lead and Arsenic—as met with in our Industries" and the second on "Textile Manufactures—Silk, Cotton, Woollen, and Linen Industries" by Dr. J. T. Arlidge. As regards the occupation of mining itself Dr. Oliver is of opinion that the work exposes those engaged in it but slightly to the risk of lead poisoning. On the other hand, the lecturer pointed out that lead miners tend to hold aloof from the rest of the world and usually live in villages inhabited almost wholly by people engaged in the same occupation as themselves. Close intermarriage has resulted, with enfeebled offspring as a consequence. Poor frames, coupled with work in badly ventilated mines, in which the carbonic acid often exceeds 2 per cent., and housing in miserably overcrowded rooms, render lead miners peculiarly susceptible to phthisis and pulmonary disease. The danger in smelting lead would now appear to be reduced to nil owing to the use of the hood, by means of which the fumes are all carried up the chimney. The lead which thus escapes up the chimney is deposited on the surrounding vegetation, and frequently becomes a source of poisoning to dogs, horses, and cattle. The manufacture of red lead is also, upon the whole, a comparatively harmless process; but during the packing of the red lead and the raking out of flues and furnaces a quantity of dust is blown about and may cause saturnine poisoning in the workers. It is in the making of white lead that the gravest dangers occur to the operatives. The stripping of the "white bed" and the drawing or clearing of stoves is mainly performed by girls, and the work sometimes tells upon them with terrible severity. Dr. Oliver is of opinion that not only are women more susceptible to lead poisoning, but they are susceptible sooner to it than men. As preventives the lecturer recommended the wearing of overalls and respirators, careful cleansing of the hands and teeth before eating, only one day's work a week in the stoves, but especially and above all else, taking the precaution of having a good meal before commencing work. Dr. Oliver has satisfied himself by experiments that during active digestion only a very small quantity of lead is capable of undergoing absorption, and this has been confirmed by observation upon the workpeople. The lecturer bore testimony to the care with which all these precautions are insisted upon by many factory owners, and as a result the comparative freedom from lead-poisoning amongst the operatives. As so much had been written concerning the horrors of arsenical poisoning in factories where the manufacture of emerald green pigment is carried on, Dr. Oliver visited some of them; but he was unable to confirm these gruesome tales, and found the men, on the whole, healthy.

During the course of his lecture Dr. Arlidge pointed out that the textile industries in this country gave employment to many more women than men, the former exceeding the latter by 230,000. He also dwelt upon the paucity of medical literature bearing upon the mortality and diseases of textile operatives, and urged the necessity for more careful investigations being carried out by medical men on both these points. As adverse conditions acting upon the workers, Dr. Arlidge indicated the noise and roar of machinery, the monotony of the occupation, the strain upon the senses and attention, the working in bent and cramped positions, and the accidents to life and limb necessarily associated with the handling of complicated machinery, and, but too often, due to the carelessness of the operatives. The lecturer then passed in review the various processes to which the several stuffs are subjected during manufacture, pointing out that while dust was a potent cause of disease in all of them in cotton spinning there were in addition the high and moist temperature to which the operatives were subjected, the unhealthy atmosphere of the gasing rooms, and the sizing with china clay and other mineral salts; in linen manufacture the use of the oil for lubricating machines, which was probably the cause of "flax fever"; and in the woollen manufacture the additional danger of contagious disease in the sorting of rags for the manufacture of shoddy, and the possible occurrence of anthrax from handling of foreign wools. Dr. Arlidge concluded by expressing the hope that, as most of these insanitary conditions are of a remediable nature, the progress of knowledge amongst factory owners, engineers, and artisans would, in the near future, either completely remove them or reduce them to a minimum.

THE RECENT EPIDEMIC AT WORTHING.

AT a meeting of the Worthing Town Council on Tuesday last the standing orders were suspended to allow of a vote of thanks being passed to the Editors of THE LANCET for forwarding to each member of the council a report of the Special Commissioners who investigated for THE LANCET the recent Hermite experiments in the treatment of sewage with electrolysed sea water at that town. The total cost to the borough of M. Hermite's experiments is returned as £168 16*s*. It will be remembered that a sum not exceeding £200 was voted by the corporation to M. Hermite towards the expenses of the tests. At the same meeting a letter was read from the Local Government Board with regard to the application of the council for leave to borrow a sum of nearly £10,000 wherewith to pay the extraordinary expenses of the typhoid fever epidemic of last year. The board expressed an opinion that, having regard to the very unusual circumstances of the case, they were "prepared to accept as proper objects for the expenditure of borrowed money the greater part of the works to which the application" related. Taking this exceptional course, sanction was given to a loan of £8270, repayable in five years, thus spreading the burden of the expenditure over that term. The board, however, struck out three items which they did not "consider they could properly sanction"—£447 17*s*. 7*d*. for disinfectants, £139 12*s* 6*d*. for notification fees, and £846 for extra labour in flushing sewers and water mains—a total of £1433 10*s*. 1*d*. This loan will mean a rate of 5*d*. or 5¼*d*. in the pound per annum during the next five years.

The question of publishing in full, with diagrammatical illustrations, the report of the medical officer of health (Dr. C. Kelly) on the recent enteric fever epidemic in the town was also discussed at the same meeting of the

town council. The sanitary committee recommended that the report be issued at a cost not to exceed £55. It was urged that the epidemic was in many ways a "record" one—in the number of cases, in the efforts made by the authorities, in the steps taken by the medical profession, in the nursing of the patients, and in the outside sympathy that had been manifested. One councillor said that he learned that many points about the disease had been cleared up, and considerable advance had been made in the knowledge of the best method of treating epidemics of the kind. Having it in their power to say whether or not this knowledge was to be distributed, it was their duty to decide in the affirmative. An objection was raised that it was "not for the council to benefit science." Ultimately an amendment that the matter be further deferred was lost by 9 votes to 7, and the report will be issued in due course. It was reported that during the past month the death-rate has been equal to one of 9 per 1000 per annum. There had been no deaths from infectious disease, and but three notifications—none of which were enteric fever. The tanks used as a temporary means of supplying drinking water last summer, which stood in the streets of the town, were sold by auction on Tuesday last.

THE ROYAL MILITARY TOURNAMENT.

THE annual military exhibition continues this year, as on former occasions, to attract vast crowds of interested spectators to the Agricultural Hall, Islington. The programme, so admirably carried out by officers and men who take part in the display, is designed to illustrate the effects of military training in developing physique and encouraging an easy and graceful bearing. The skill of the trained swordsman, the steadiness of hand and eye of the horseman, and the expertness of the engineer are exhibitions that command the continued admiration of the British public. The organisers, under the commandant, Colonel Onslow, and the secretary, Colonel Tully, have this year, as in previous years, been the recipients of well-merited congratulations.

Where, however, so great a concourse of spectators are gathered together it is necessary that the public should have some sense of security and some guarantee that the health conditions of their surroundings are not likely to cause harm or engender disease. Moreover, as it appears that between 400 and 500 troops have to find in this vast hall what is practically their home for a fortnight, we have during the past few years devoted some attention to the arrangements which have been made by the executive to meet their conveniences and requirements. In addition to the enormous shifting population and the number of troops from every branch of Her Majesty's Home service occupying the room, it has to be remembered that accommodation has to be found for over 100 horses and mules; the need of careful hygienic arrangements is thus further evident.

Perhaps the best evidence of the necessity of considering these things was obtained three years ago, and must still be fresh in the minds of the executive. So badly in many ways, as THE LANCET then pointed out, were the troops disposed, so laxly were the health arrangements supervised, that no one engaged in sanitary science was surprised to learn of the subsequent outbreak of typhoid fever among the troops who had taken part in the display. We are glad to note that the expenditure of £4000 or £5000 was not allowed to stand in the way of improvements thus demonstrated to be so urgent, and that vast alterations in the sanitary arrangements were speedily begun. New latrines and better lavatory accommodation were instituted, with immense advantage, even if all the more modern appliances have not yet been requisitioned in the work of renovation. The medical officer of health for Islington has this year, we are informed, inspected these arrangements, and, after devoting his attention to the nature of the water-supply, has been able to pronounce the hall to be in a satisfactory sanitary condition.

The health and spirits of the men engaged in the work of entertaining such crowds as visit this hall during the Tournament will respond to the influence of these improvements upon them. The flushing arrangements were tested, and responded admirably, but a personal inspection of the public latrines indicated that some care should be taken that the attendants do not allow any accumulations to take place. A still further improvement is worth noticing. Year after year we have called attention to the fact that tents had been erected inside the building, and that soldiers slept in them. This year a noticeable improvement has taken place in this respect. Tents have been abolished, and have given place to large rooms some ten feet in height for each section, arranged so as to afford some privacy to the occupants, and open at the top to afford the freest ventilation. It is indeed an arrangement almost ideal under the circumstances, upon the adoption of which we are glad to congratulate the authorities. Towards the end of a crowded performance on looking through these rooms the ventilation seemed good, and in no sense could the building be described as stuffy, and the medical officer in charge stated that even on his midnight visit he had still no fault to find with the state of the atmosphere. This improvement is probably largely due to the introduction of the electric light this year. The illumination of dangerous corners is much better than has ever been the case in former years, and is under the supervision of Lieutenant Johnston, of the Submarine Miners, who is virtually acting as the electrician of the tournament. We noticed also some small Blackman's fans whirling in different portions of the building, but so few that they could scarcely affect the purity of the atmosphere. Last year we recommended to the attention of the executive some such plan as this on a large scale, so arranged as to communicate with the outer air and not merely to drive currents of air from one enclosed part of the building to another equally unhealthy.

The men express themselves as being satisfied with the rations supplied to them, both as regards quality and abundance.

The principal medical officer in charge of the Tournament is Surgeon-Captain Tyrrell, assisted by Surgeon-Captain Cree. Both have manifested the greatest interest in all problems of sanitation. It is due to the energy of Surgeon-Captain Tyrrell that such good results have been accomplished. The Tournament organisers have spared this year no expense to make the comfort and health of the men as perfect as possible, and the recommendations of the medical officer in charge have at once been carried out. The relations of the medical officers with Colonel Onslow, the commandant, are those of complete confidence, and it is only under such conditions that sanitary success in dealing with large masses of living creatures is possible.

One point of danger mentioned last year still exists unremedied. Surely it will not require a serious catastrophe to bring the condition of the entrance for the spectators from Upper-street, Islington, to the notice of the executive. It is at the east end of the building, the point where the competitors assemble before entering the arena. The entrance is too narrow and is often blocked by people, who crowd around the horses' heels. Easy means of avoiding this tendency to accident will readily suggest themselves.

It is rare that any serious accident happens in connexion with the Royal Military Tournament. The hospital has this year been erected outside the walls, on a separate site, thus securing the most favourable conditions of light, air space, and quietude. It is in direct communication with the hall by a covered corridor, through which, in the case of severe accident, the injured can be easily conveyed. The hospital is fitted with two beds, a medicine pannier, a material pannier, and a field fracture box, providing all the requisites required in a hospital. An orderly is always in attendance. The health of the troops has been described as excellent. There has been no fever, catarrh, or influenza, which has been so rife in the past. The accidents have been of a very minor description, a result which reflects great credit on the executive. Another circumstance which must afford a sense of security to troops who enter the arena and renewed confidence in the medical officers is the presence of those who were injured last year. The Berkshire mounted infantry volunteer who sustained such a severe comminuted fracture of his tibia at the last Tournament is again a competitor in the lists, and Corporal-Major Harvey, of the 2nd Life Guards, who behaved so pluckily when his thigh was broken, is bringing with him this year a team of the 2nd Life Guards to show lance exercise.

The ambulance service under Surgeon-Captain Lawless continues to render excellent service to the public. Two ambulance stations have been erected and supplied with the necessary materials for the treatment of emergencies and accidents which may happen among the spectators. Miss C. Woodward and Miss A. Woodward are the nurses in attendance. The accommodation seems to be all that is required, and two regimental bearers of the 4th V.B. East Surrey Regiment are constantly in attendance.

REGINA v. HERMANN.

AFTER a trial which lasted three days Marie Hermann, an Austrian by birth, was convicted of manslaughter at the Central Criminal Court on Saturday last, and sentenced to six years' penal servitude. It will be remembered that the convict, an unfortunate, went to her rooms one night in the company of an old man named Stephens, described as a retired cab proprietor, but whose antecedents showed that he had earned the less respectable title of brothel-house keeper. From the evidence of people who lived in the house it appears that during the night conversation and noises were heard which clearly showed that the man and woman were engaged in a quarrel. During the early hours of the morning Hermann went downstairs several times to fetch water in a pail. Two days later she gave up the tenancy of her rooms and took fresh lodgings. Amongst her effects was a large trunk strongly corded. To allay any suspicion that might be aroused by the weight of the box she asserted that the latter contained books, and that she purposed sending it to Germany. Mrs. Hutchins, a lodger in the same house, having in mind what transpired overnight and finding blood in the sink in the yard where Hermann emptied the pail, suspected foul play and communicated with the police. The latter proceeded to Hermann's new abode and opened the trunk. Instead of literary matter it was found to contain the dead body of the man Stephens. A post-mortem examination showed that the deceased had died from injuries inflicted on the head; besides bruises, there were seven scalp wounds, six of which were jagged and elongated, the other appeared more or less punctured. With one exception these wounds were on the right side, and from their relative position and character appeared as if caused by a rapid succession of blows. Any doubt that might have been entertained on this head was removed by the admission of the prisoner that she struck deceased with a poker in self-defence. Weight was lent to this assertion by finding on the prisoner's neck, some five days after the tragedy, thumb and finger marks, which Dr. Walker, the prison surgeon at Holloway, was of opinion could not have been self-inflicted.

It is an interesting fact that no marks were detected on the prisoner by the female searcher at the police-station. This may be explained either on the supposition that the examination was not made with sufficient care, or that the bruises had not developed at the end of the second day. The latter is the less probable since Dr. Walker described them as being of such colour as to agree with their age being about five days. His testimony was of vital importance to Hermann, telling so strongly as it did against the more serious indictment. Mr. Justice Wills, who tried the case, in charging the jury, said that he could not see how the theory of murder could be sustained. The circumstance of the bruises in this case points to the advisability of every prisoner charged with murder, manslaughter, or with felonious assault, being medically examined at the earliest possible moment, and this is all the more necessary when the accused alleges that he has been assaulted.

As Hermann said she wanted not the man but his money, it is reasonable to infer that she possessed herself of the latter, and that the deceased endeavoured to regain it. Being drunk he would be all the more likely to use unnecessary violence and thus provoke the woman to the murderous attack. That she repented the violence was shown by the fact that she went out to get stimulants and also plaster and bandages to bind up his head. Finding him dead she, intoxicated and aghast at the silent witness of her crime, resolved to flee from justice and hide the proof of guilt.

The deceased weighed about fifteen stone, and it was contended by Hermann's counsel that a woman of prisoner's physique could not, unaided, have lifted the body into the trunk. The witnesses for the prosecution were divided in opinion on the question. The task, no doubt, would be arduous, but we do not agree that it was impossible. A supreme effort might be needed, but the occasion was such as likely to call it forth. Moreover, it is not necessary to assume that the body was simply lifted from the ground or a chair and dropped into the trunk. The latter may have been placed on its side or end, or the prisoner may first have lifted the legs in first and thus have gained some leverage to aid her in raising the rest of the body. It is right, however, to point out that whilst the deceased's hair and clothes were saturated with blood there was only one smear on the outside of the trunk. To show what little credence could be given to the prisoner's word, it may be mentioned that she referred a "bump" on her head to the deceased's violence, whereas it was due to a symmetrical projection of the parietal bones and clearly congenital.

The history of the above case is one of squalor and vice unrelieved by a touch of finer feeling or romance. Drunkenness, licentiousness, and guilt—a seething mass of moral corruption, surpassing even in its hideousness the social evils portrayed by Zola.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Cholera in Rotherham in 1893.—The majority of the sporadic outbreaks of cholera which occurred in several parts of England last year presented one remarkable feature in common—i.e., they were in large part inexplicable as regards their origin, and Dr. Theodore Thomson's report to the Local Government Board on cholera at Rotherham in the autumn of 1893 is an instance both of the thoroughness with which these outbreaks were investigated and of the difficulties with which they were surrounded. The first case of cholera which came to the notice of the sanitary authority occurred on Sept. 5th, and after detailed local inquiry Dr. Thomson was unable to discover either its origin or that of two cases which occurred subsequently on Sept. 11th and 18th. It was, however, ascertained that on Aug. 24th there died at a house some 500 yards distant from that in which the Sept. 5th case died a woman who, on the previous day (Aug. 23rd), had partaken of oysters at Cleethorpes, where cholera was then prevalent. This woman suffered, prior to her death, from abdominal pains and collapse, but had, it appears, neither diarrhœa nor vomiting. Several friends were with her at Cleethorpes, but they neither partook of oysters nor suffered from the symptoms referred to. No connexion could, however, be discovered between this case and any of the three which subsequently occurred in Rotherham, nor between these and any of the 18 cases of "choleraic diarrhœa" which were reported from different parts of Rotherham between Sept. 15th and Oct. 18th, mostly amongst adults, although the only 2 of these 18 which were examined bacterioscopically were pronounced to be undistinguishable from true cholera. With one exception all these cases of "choleraic diarrhœa" recovered. There was, as regards diarrhœa, an exceptionally heavy death-rate in Rotherham in the second and third quarters of 1893, not only as compared with its own previous records, but also as compared with the large towns and the country generally, and it appears that the cases, though not the deaths, were most prevalent at the same time as the "choleraic diarrhœa." It would appear, however, that, although this parallelism existed, there was in Rotherham in 1893 no departure from the usual age incidence of diarrhœa, and the deaths from the disease were more abundant under five and over sixty years of age; there was, too, no exceptional incidence of the disease on any particular locality. During 1893 no unusual number of enteric fever cases occurred in Rotherham, but the greatest incidence of the disease was coexistent as regards time with the major incidence of "choleraic diarrhœa." In his endeavours to throw some light on the origin and maintenance of cholera in Rotherham Dr. Thomson went closely into all the sanitary circumstances of the district, and he is able to say of the sanitary authority that in dealing with the outbreak they "displayed commendable promptitude and energy." With regard, however, to the numerous privy middens in the district, and to the water-supply—especially the latter—Dr. Thomson has some serious admonitions to the sanitary authority. In connexion with the numerous privy middens which exist in the town he points to the risks of the pollution of the soil and subsoil which are incurred by these leaky receptacles, and how the contagium contained in the cholera excreta might multiply in the soil and in various ways be conveyed throughout the district. In dealing with the water-supply Dr. Thomson shows that it is improbable that the outbreak of cholera under review was caused or spread by it; but after referring to a previous

report made by himself on an outbreak of enteric fever in Rotherham in 1891, and remarking that the Wellgate Spring, "which emerges through a soil polluted by the contents of privy middens," was still supplying water at the time of the cholera outbreak, he observes that "Rotherham had in 1891 actual experience of loss of life and health from fever due to specific pollution of the public water-supply; but the sanitary authority do not appear to have profited by the lesson," and he concludes his very thorough report with this ominous sentence: "Let them consider seriously the responsibility for lives lost and health destroyed that will be theirs should the lesson of 1891 be repeated in 1894 with cholera in place of enteric fever as the polluting agent of the public water-supply of the district confided to their charge."

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Halifax Urban Sanitary District.—There were notified in this district during 1893 no less than 346 cases of small-pox, and of this number 340 were admitted into hospital. The incidence of the disease on the several wards varied very considerably, but that on the Southowram ward, which contains the small-pox hospital, was much in excess of any other, although there was no preponderance of population to account for it. Mr. D. Ainley, the medical officer of health, observes of this excessive incidence that it "will be attributed by some to the presence of the hospital," but as he has apparently discussed the question in a special report he refrains from further remarks upon it. It appears, however, that the sanitary authority have now determined to erect a separate hospital for small-pox, and also to provide isolation for other infectious diseases free of any charge to the patients. The subjoined table in reference to the condition as regards vaccination and revaccination of the small-pox cases is of interest and will speak for itself:—

Table showing the number of cases of Small-pox admitted to hospital in the years 1892-93 of all classes, at different age-periods, distinguishing the type of attack and giving the mortality per cent. of each type and of each age-period, and of all ages.

	Under five years.		Five to ten.		Ten to twenty.		Twenty to thirty.		Thirty to forty.		Forty and upwards.		All ages.		Totals.
	Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.	Vaccinated.	Unvaccinated.	
Discrete	No cases.	5	4	4	69	..	122	..	78	..	56	..	329	9	338
Semi-confluent		20	..	4	12	2	16	..	24	..	6	..	58	26	84
Confluent		25	..	9	5	3	8	5	12	6	13	5	38	53	91
Total { Cases ..	..	50	4	17	86	5	146	5	114	6	75	5	425	88	513
Total { Deaths	..	20	..	2	1	1	1	3	1	6	5	4	8	36	44
Mortality per cent. of cases	..	40·0	0·0	11·7	1·1	20·0	0·6	60·0	0·8	100·0	6·6	80·0	1·8	40·9	8·5

Two cases of revaccinated persons. First revaccinated inefficiently 5 years ago. Second revaccinated 34 years ago.
Officials: one only attacked, and that during first week of epidemic, not revaccinated; all others revaccinated, and none attacked. Doubtful cases omitted.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6055 births and 3403 deaths were registered during the week ending June 2nd. The annual rate of mortality in these towns, which had been 17·1 and 17·7 per 1000 in the preceding two weeks, declined again last week to 17·0. In London the rate was 16·4 per 1000, while it averaged 17·4 in the thirty-two provincial towns. The lowest rates in these towns were 12·3 in Brighton, 12·6 in Croydon, 13·6 in Bristol and in Preston, and 13·7 in Derby; the highest rates were 20·0 in Liverpool, 20·3 in Sunderland, 21·5 in Salford, 21·7 in Birkenhead, and 30·0 in Wolverhampton. The 3403 deaths included 520 which were referred to the principal zymotic diseases, against 550 and 559 in the preceding two weeks; of these, 240 resulted from measles, 112 from whooping-cough, 53 from diphtheria, 40 from scarlet fever, 35 from diarrhœa, 26 from "fever" (principally enteric), and 14 from small-pox. These diseases caused the lowest death-rates in Oldham, Brighton, Derby, and Preston, and the highest rates in Wolverhampton, Salford, West Ham, and Birkenhead. The greatest mortality from measles occurred in Halifax, London, Wolverhampton, Birmingham, Birkenhead, and West Ham; from scarlet fever in Salford; from whooping-cough in Nottingham, Norwich, Birkenhead, and Sunderland; and from "fever" in Burnley. The 53 deaths from diphtheria included 36 in London, 3 in Leeds, and 3 in Sheffield. Four fatal cases of small-pox were registered in London, 3 in West Ham, 3 in Birmingham, and 1 each in Plymouth, Bristol, Liverpool, and Bradford, but not one in any other of the thirty-three towns. There were 244 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, June 2nd, against 210, 219, and 236 at the end of the preceding three weeks; 58 new cases were admitted during the week, against 71, 52, and 69 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2277, against 2298, 2307, and 2271 on the preceding three Saturdays; 218 new cases were admitted during the week, against 252 and 216 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 234 and 248 in the preceding two weeks, declined again to 222 last week and were 65 below the corrected average. The causes of 65, or 1·9 per cent., of the deaths in the thirty-three towns were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Portsmouth, Oldham, Bradford, and in ten other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Norwich, Liverpool, and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·4 and 19·0 per 1000 in the preceding two weeks, further rose to 20·3 during the week ending June 2nd and exceeded by 3·3 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·8 in Perth and 17·7 in Edinburgh to 22·5 in Greenock and 28·9 in Leith. The 578 deaths in these towns included 37 which were referred to whooping-cough, 12 to diarrhœa, 8 to "fever," 6 to diphtheria, 6 to scarlet fever, 5 to small-pox, and 1 to measles. In all, 75 deaths resulted from these principal zymotic diseases, against 60 and 61 in the preceding two weeks. These 75 deaths were equal to an annual rate of 2·6 per 1000, which corresponded with the mean rate last week from the same diseases in the thirty-three large English towns.

The fatal cases of whooping-cough, which had been 26 and 31 in the preceding two weeks, further rose to 37 last week, of which 19 occurred in Glasgow, 8 in Aberdeen, and 6 in Edinburgh. The deaths referred to different forms of "fever," which had been 7 and 6 in the preceding two weeks, rose again to 8 last week and included 3 in Glasgow, 2 in Edinburgh, and 2 in Paisley. The 6 fatal cases of diphtheria corresponded with the number in the preceding week and included 3 in Glasgow and 2 in Dundee. The deaths from scarlet fever, which had declined from 9 to 4 in the preceding three weeks, rose again to 6 last week, of which 3 occurred in Glasgow. The 5 fatal cases of small-pox were recorded in Leith. The deaths referred to diseases of the respiratory organs in these towns, which had been 89 in each of the preceding two weeks, rose to 95 last week and slightly exceeded the number in the corresponding week of last year. The causes of 43, or more than 7 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 25·8 and 22·2 per 1000 in the preceding two weeks, rose again to 25·2 during the week ending June 2nd. During the past nine weeks of the current quarter the rate of mortality in the city has averaged 23·8 per 1000, against 18·0 in London and 17·5 in Edinburgh. The 169 deaths registered in Dublin during the week under notice showed an increase of 20 upon the number in the previous week and included 12 which were referred to the principal zymotic diseases, against 16 and 15 in the preceding two weeks; of these, 5 resulted from whooping-cough, 4 from "fever," 3 from diarrhœa, and not one either from small-pox, measles, scarlet fever, or diphtheria. These 12 deaths were equal to an annual rate of 1·8 per 1000, the zymotic death-rate during the same period being 3·2 in London and 1·9 in Edinburgh. The fatal cases of whooping-cough, which had been 5 and 8 in the preceding two weeks, declined again to 5 last week. The deaths referred to different forms of "fever," which had been 5 and 4 in the preceding two weeks, were again 4 last week. The 3 fatal cases of diarrhœa also corresponded with the number in the preceding week. The 169 deaths in Dublin last week included 25 of infants under one year of age and 42 of persons aged upwards of sixty years; the deaths of infants corresponded with the number in the preceding week, while those of elderly persons exceeded those recorded in any recent week. Ten inquest cases and 6 deaths from violence were registered; and 59, or more than a third, of the deaths occurred in public institutions. The causes of 10, or nearly 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-MAJOR-GENERAL COLAHAN has assumed the duties of Principal Medical Officer in Ireland. Surgeon-Captains Tyrrell and Cree have been transferred from Aldershot to London for duty at the Royal Military Tournament. Surgeon-Captain Salmon has left Egypt on completion of a tour of service there, and Surgeon-Captain Maher has arrived at Sierra Leone. Surgeon-Major Maunsell has been granted leave from India, and Surgeon-Lieutenant Farmer has been posted to the Royal Infirmary, Dublin, for duty.

INDIA AND THE INDIAN MEDICAL SERVICES.

The following appointments are announced: Surgeon-Colonel Sibthorpe, Indian Medical Service, at present Principal Medical Officer, Secunderabad District and Hyderabad Contingent, to succeed Surgeon-Major-General De Fabeck as Surgeon-General with the Government of Madras. Surgeon-Lieutenant Mulvany, 2nd Bengal Infantry, and Surgeon-Lieutenant Bourke, 18th Bengal Infantry, to the Officiating Medical Charge of their respective regiments. Surgeon-Lieutenant C. Williams and Surgeon-Lieutenant J. Davidson, both of the 1st Battalion 2nd Gurkha Rifles, to the Officiating Medical Charge of the Battalion. Surgeon-Lieutenant A. O. Hubbard, 2nd Battalion 3rd Gurkha Rifles, to the Officiating Medical Charge of the Battalion. Surgeon-Captain W. H. Henvey, 4th Punjab Infantry, to the Officiating Medical Charge of the Regiment. Surgeon-Captain Heath, officiating in Medical Charge, 25th Bombay Infantry, to officiate in Medical Charge of the 2nd Bombay Lancers. Surgeon-Major Ferguson, on general duty Sind District, to the Medical Charge of the 19th Bombay Infantry. Surgeon-Colonel D. O'Connell Raye, I.M.S., Bengal Establishment, is appointed Principal Medical Officer, Bundelkhand and Narbudda Districts. Surgeon-Lieutenant-Colonel C. J. H. Warden, I.M.S., Bengal Establishment, Officiating Medical Storekeeper at the Presidency, is confirmed in that appointment. The services of Surgeon-Captain H. M. Morris, Officiating Civil Surgeon, Monghyr, are placed at the disposal of the Government of India, in the Home Department. The services of Surgeon-Captain J. Chaytor White, M.B., I.M.S. (Bengal), are placed at the disposal of the Home Department. The services of Surgeon-Captain C. N. Bensley, I.M.S. (Bengal), are placed temporarily at the disposal of the Chief Commissioner of the Central Provinces. Surgeon-Lieutenant Bennett, I.M.S., is posted to general duty, Poona District. Surgeon-Lieutenant-Colonel F. C. Barker and Surgeon-Lieutenant W. Carr Sprague have respectively delivered over and received charge of the Rajkote District Gaol. Surgeon-Lieutenant-Colonel J. F. Keith and Surgeon-Major G. H. Henderson have respectively delivered over and received charge of the Hyderabad District Gaol. Surgeon-Major-General W. F. De Fabeck, M.D., I.M.S., Madras Establishment, retires with effect from the 18th ult., on a pension of £700 per annum and an additional pension of £250. Surgeon-Colonel T. Walsh, A.M.S., is granted the local and temporary rank of Surgeon-Major-General, pending promotion, while employed as Principal Medical Officer, Madras.

NAVAL MEDICAL SERVICE.

The following appointments are notified:—Fleet-Surgeon W. B. Drew, to Haulbowline Hospital; Staff-Surgeon Herbert E. Marsh, to the *Northampton;* and Surgeon Bernard B. Gilpin, to the *Northampton.*

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Major William M. Harmer having resigned his Volunteer appointment, ceases to be an officer of the Army Medical Reserve of Officers.

VOLUNTEER CORPS.

Artillery: 2nd Cinque Ports (Eastern Division, Royal Artillery): Surgeon-Captain W. F. Lovell, from the 1st Cinque Ports Volunteer Artillery, to be Surgeon-Captain.—2nd Devonshire (Western Division Royal Artillery): Surgeon-Lieutenant F. E. Row resigns his commission.—*Engineer:* 1st Devonshire and Somersetshire: Surgeon-Lieutenant C. L. Cunningham to be Surgeon-Captain.—*Rifle:* 1st Volunteer Battalion, the Prince of Wales's Own (West Yorkshire Regiment): Surgeon-Captain A. O. Wiley to be Surgeon-Major.—1st Volunteer Battalion, the Worcestershire Regiment: Surgeon-Lieutenant A. Cunningham resigns his commission.—22nd Middlesex (Central London Rangers): George Herschell, M.D., to be Surgeon-Lieutenant.—5th (Deeside Highland) Volunteer Battalion, the Gordon Highlanders: Surgeon-Lieutenant R. Rannie, M.B., to be Surgeon-Captain.

VOLUNTEER MEDICAL STAFF CORPS.

The Norwich Company: Surgeon-Captain T. W. Richardson to be Surgeon-Major.

VOLUNTEER OFFICERS' DECORATION.

The Queen has conferred the Volunteer Officers' Decoration upon the undermentioned Officers of the Volunteer Force:—*Volunteer Medical Staff Corps:* Manchester Companies: Surgeon-Captain William Henry Brownbill Crockwell.—*Eastern District: Rifle:* 4th (Cambridge University) Volunteer Battalion, the Suffolk Regiment: Surgeon and Honorary Surgeon-Major Edmund Carver, retired; 3rd Voluteer Battalion, the Bedfordshire Regiment: Surgeon-Lieutenant-Colonel Henry Frederick Holland, M.D.—*Thames District: Artillery:* 2nd Kent: Surgeon-Lieutenant-Colonel Ralph Gooding, M.D.

DEATH IN THE SERVICES.

Dr. Archibald Graham, late Deputy-Inspector-General of Hospitals, Bombay Army, died on the 12th ult. at Edinburgh, in his ninety-fifth year.

Correspondence.

"Audi alteram partem."

THE METROPOLITAN HOSPITAL SUNDAY FUND.

To the Editors of THE LANCET.

SIRS,—We are once more on the eve of Hospital Sunday in London, and for the twenty-second year in succession the courtesy of your assistance is asked to enable me in my capacity as treasurer of the Fund to make a very urgent appeal to the charitable public to support the annual effort in aid of the hospitals, dispensaries, and convalescent institutions, which are so continuously and so largely providing for the wants of the sick poor of the metropolis. Last year the Fund reached a total of £39,290, being less than has been raised in any year since 1885, and this amount was distributed among 122 hospitals and 55 dispensaries. It is computed that at least £100 000 is needed to clear these institutions from debts incurred beyond their normal incomes in the medical and surgical treatment of the London poor. An interesting return recently published in THE LANCET shows that last year no fewer than 103,585 in-patients and 3,871,290 out-patients were treated in the various hospitals, in addition to 243,801 accident and emergency cases. In spite of this, it is a fact that whereas 200 years ago the hospitals in London could take in one sick person out of every 133 residents, the proportion is now one out of every 660. But the good done by the hospitals cannot be estimated by mere statistics of treatment, for as the same article points out: "New principles in medicine, a new era in surgery, and a clearer comprehension of the laws of health and of the secret processes of disease are the offspring of the tenderness, skill, and assiduity with which the sick poor have been cared for in hospitals. Sanitary laws have been formulated, and, although even now these are often very inadequately applied, their absence, if hospitals were abolished in London altogether, would reduce us from the present high degree of civilisation, for which we are in a great part indebted to the hospitals, again to a condition little short of barbarism."

For these reasons I venture, with your permission, to prefer an especially pressing appeal for the benevolence of the various congregations on Hospital Sunday. It is the one opportunity given in each year for the churches of the metropolis, through their ministers and laity, to join in an expression of gratitude for the good work effected by the London hospitals, and also of thankfulness for the immunity from sickness and accident which in our own families we have enjoyed.

I would, therefore, very earnestly plead for a hearty and munificent response to the appeals which will be made from the pulpit on Hospital Sunday, and I would add the usual intimation that I shall be glad to receive at the Mansion House any donations towards the Fund which may be sent to me.

I am, Sirs, your obedient servant,

GEO. ROBT. TYLER, Lord Mayor.

The Mansion House, London, June 7th, 1894.

THE LOCAL GOVERNMENT (SCOTLAND) BILL.

To the Editors of THE LANCET.

SIRS,—Perhaps no more important measure as regards its effects on Scotland and the Scottish people has ever been introduced into Parliament than the present Bill for reform of local government in that part of Her Majesty's dominions. It is the natural complement of the Act passed for England last session, and the changes in both countries promise to be of the most momentous nature. At some future time I should like to refer to the more important of these proposals, but at present I shall only touch on those directly affecting our own profession. Parish councils will take the place of parochial boards, and every parish medical man will hold his post under a new set of masters. In many cases the rule will be little changed, but in others the parochial new broom will be furbished forth to sweep clean, and it may be not easy to please one's masters. The great fault of the new democracy is only too likely to show itself—namely, expecting a great deal for a very little. A salary of £10 or £20 is apt to be looked upon as a perfect fortune of itself in the eyes of those who do not stop to count the cost of horses and grooms and the other necessary outlays of a hard-working country practitioner.

But I wish more particularly to say a word or two in favour of the Government proposal of placing a medical man of eminence on the Local Government Board as one of the three "appointed" members. In England, with the large amount of work to be done by the Local Government Board, it is perhaps better to have a special medical department with its chief and his subordinates. But in Scotland there is not only no necessity for such specialisation, but it would be a hindrance to good work. As the board is likely to be constituted there will be two, and perhaps three, lawyers in it. Surely it would not be too much to have one medical man. The profession has been too much ignored hitherto in connexion with business matters. I hold there are many medical practitioners who are also excellent business men. But on higher grounds I plead for a place in administrative machinery for a medical councillor. There is scarcely a subject connected with pauperism in which his special knowledge will not be valuable. Sir Walter Foster has, I am assured, proved this in his own case; but public health is more and more coming to the front, and here the experience and qualifications of the expert will be most valuable, not only when his authority is acknowledged, but in every-day cases, where at first it may appear no professional opinion is necessary or desirable.

I am, Sirs, yours truly,

WILLIAM BRUCE, M.D.,

June 6th, 1894. M.O.H. for Ross and Cromarty.

"THE USE OF THE TOES."

To the Editors of THE LANCET.

SIRS,—May I add a word in confirmation of Mr. T. S. Ellis's statement as to the "use of the toes" in THE LANCET of May 26th? I agree with him in his dissent from Sir George Humphry and Mr. Clement Lucas. The toes do work in walking. We are not yet so degenerate from our simian sires as to have quite lost this faculty. But to be seen in perfection we must look to those men and women who do not wear boots. I do not refer alone to savage races, but to men of all countries, especially those engaged in certain trades, who turn their toes to useful account. Striking examples are found amongst Lascar and Italian sailors. I have seen an Italian sailor climb a single rope, seizing it with his hands and toes alternately, the grip of the toes being as strong as that of the hands. The use of the toes is very much a matter of early training and use.

I am, Sirs, your faithfully,

Lingwood, Lyss, June 2nd, 1894. ROBERT BARNES.

To the Editors of THE LANCET.

SIRS,—Sir George Humphry "will not object to *my* advocacy of the usefulness of the toes," but he does not make it clear whether he himself believes in such usefulness. There is nothing to show that he does not still hold the view expressed in "The Human Skeleton," that the toes have been "thrown nearly into disuse by civilisation; and their services can be spared without detriment to the rest of the frame." Having made the definite statement that the toes are "not used," he explains the absence of muscular atrophy by admitting sufficient movement to prevent it. But, in the case of the smaller toes, vigorous, abundant, and effective use may occur with hardly any movement at all. The flexor muscles are, in the act of walking, really *pressors* of the toes against the surface beneath them, thus giving foothold. And as they all move in vertical planes, a moderately tight boot does not prevent downward pressure by these toes, even though they be closely packed together. The great toe, having its plane of movement oblique, is most restricted in this respect by the median-pointed boot, although Mr. Clement Lucas would have us believe that it is the only one habitually used.[1] To observe that the muscles which act on the toes "have the further office of aiding the movements of the ankle

[1] THE LANCET, Feb. 27th, 1892.

and tarsal joints" is not to admit the usefulness of the toes. Such purpose might be served if they did not exist and the tendons attached to them were fixed to the heads of the metatarsal bones. As it is, however, when the heel is raised the long flexors, having their tendons attached to the ends of the toes and acting on the plantar arch as bow-strings or tie-rods, have a tendency to include in that arch everything between the ends of the toes and the os calcis. In this way the heads of the metatarsal bones are uplifted and, when borne down by the weight of the body, are *let* down gently. Sudden and injurious pressure is thus prevented and so also is friction. Failure of this function, in varying degree and under different conditions, is the cause of callosities on the sole, of "metatarsalgia," of "Morton's Toe," and of suffering such as that described by Dr. Guthrie in THE LANCET of March 19th, 1892. Not only in these cases is there a clear surgical indication to restore the functions of the toes. It is now ten years since I first put forth in THE LANCET a plea for the study of "The Physiology of the Feet," an expression then used for the first time.[2] Since then, in your columns, in "The Human Foot" and elsewhere, I have done my best to promote it. But I am not likely to induce "shoemakers and fashion to increase the range of the usefulness of the toes," if it is to be understood that so great an authority as Sir George Humphry, eminent not only as a surgeon but as a philosophical anatomist, scarcely recognises either their usefulness or their use.

I am, Sirs, yours faithfully,

Gloucester, June 2nd, 1894. T. S. ELLIS.

"PARALYSIS FOLLOWING DIPHTHERIA OF THE GENITALS ONLY."

To the Editors of THE LANCET.

SIRS,—Corroborating the interesting case under the above heading published by Dr. Gayton in THE LANCET of May 26th, allow me to refer to a case reported by Dr. Hill in THE LANCET of March 9th, 1889, and mentioned in my book, in which a man aged forty had false membrane on an old eczematous patch near the anus, which was followed by typical paralysis. There was no false membrane in the throat. The daughter of this patient, aged nine, had some weeks afterwards primary diphtheria on the vulva, which spread to the vagina and perforated the recto-vaginal wall. There was also false membrane on the throat which extended to the lung, causing death. Dr. Gayton is to be thanked for bringing forward the case, if only to qualify the statement recently made that diphtheretic paralysis does not follow except when the fauces have been previously affected, and it would be interesting to know on what rational hypothesis such an assertion can be sustained.

I am, Sirs, yours faithfully,

Mansfield-street, W., May 28th, 1894. LENNOX BROWNE.

"TRIKRESOL FOR INHALATION."

To the Editors of THE LANCET.

SIRS,—The interesting observations of Professor Charteris on Trikresol, communicated through THE LANCET, must have attracted the attention of many of its readers; and the important fact that trikresol is free from the poisonous qualities of carbolic acid must have suggested its great superiority in medical and surgical practice. Through the kindness of Professor Charteris I have been favoured by Messrs. Zimmerman with a specimen of Schering's trikresol, in order to ascertain whether it could be used for inhalation, as the poisonous properties of carbolic acid have for that purpose made it somewhat objectionable. My object was to determine whether trikresol when mixed with water in definite proportion would, like carbolic acid, when treated similarly, yield a vapour, on boiling, of definite and constant strength, a peculiarity which attaches, as I pointed out some years ago, to carbolic acid, and which makes it superior to all other antiseptics for inhalation. I find that trikresol follows the same law, as might have been expected, as carbolic acid, and that a mixture of one drachm of trikresol to one pint of water gives off, when boiled continuously, a vapour of the same strength as the mixture. This is rather strong for children, and a weaker solution may be used. To what important uses this property of trikresol can be applied in the treatment of many maladies by inhalation, I hardly need point out.

I am, Sirs, yours truly,

West Kensington, May 31st. ROBERT LEE.

[2] THE LANCET, June 28th, 1884.

"A CASE OF ADENOMA OF THE BREAST WHICH AFTER NINE YEARS DEVELOPED CARCINOMA."

To the Editors of THE LANCET.

SIRS,—May I remark that Mr. Warrington Haward's case under this heading, in THE LANCET of May 19th, illustrates the rule and not the exception, unless it may be as to the length of time? For fairly obvious pathological reasons all the connective tissue tumours which appear in the female breast during its devolution period pass eventually into a malignant stage. Most often the secondary lesion is carcinoma, as in the case cited; less commonly it is spindle-celled sarcoma. The former springs from the epithelium of the included acini, which dilated form the always numerous cysts; the latter from the redundant fibrous tissue base. I think the time within which the fatal modification ensues averages five to six years; in an instance of the last-named order, now under my care, it was only four years. The important practical point, however, with which I am here concerned is the differentiation of these tumours from the outwardly similar "lumps" manifest during the development of the mammæ—i.e., in young girls. The former always, sooner or later, verge into cancerous disease, the latter never. The former rarely fail to undergo resolution under appropriate local treatment without resort to operation; the latter imperatively need early excision. The former I have never yet found in association with cyst formation; the latter are always full of innumerable cysts, some large, some microscopic, a thin section being recognisable at a glance by its cribriform appearance. The former are often multiple; the latter always single. With such significant clinical points of distinction it becomes peculiarly necessary not to confuse these two essentially different lesions under an ambiguous title common to both. The term "fibro-adenoma" might thus be discarded with conspicuous advantage: the harmless adenoid thickening seen in young girls is appropriately described as the "fibroma of adolescence"; the far more serious disease of middle-aged women should, in accordance with its most salient characteristic, be styled "cystic fibroma." I am, Sirs, your obedient servant,

Gloucester-place, Portman-square, W. HERBERT SNOW.

HEALTH RESORTS AND INFECTIOUS DISEASES.

To the Editors of THE LANCET.

SIRS,—It is not to be wondered at that there is still much criticism of the notification system and even some doubts as to the utility of it. The enormous epidemics of notifiable disease through which we are passing are proof enough that it is not so efficient for prevention of disease as we should expect it to be. We can only persevere in attempts to make it work smoothly and efficiently. Surely some more public use of notification should be practicable, especially in regard to places which we regard as health resorts. I think the time is opportune for asking you, before the holidays, to use your influence to secure that these places do not become disease resorts. Let me illustrate my meaning. Last year one of my patients, with seven small boys, went down to a popular seaside place, which shall be nameless. Four of them took scarlet fever there at such dates as to make it certain that it was caught in the place, and probably in the house. His expenses were great, and the oldest of the four nearly died. I reported these facts to the medical officer of health, who replied with great courtesy and, I think, suspected the *fons et origo mali*, but could not satisfy himself or give any information that could lead to the detection of the culprit. A medical friend told me a few days ago that he took a house in a well-known place on the Thames for the benefit of his family. Four of them took diphtheria in the house, and one typhoid fever. Gross defects of drainage in the house and the adjoining house were discovered. Surely, with all our sanitary laws and their costly administration, such accidents should become rarer. I would suggest that a visitor, in taking a house at

a health resort, should be able to satisfy himself at the office of the Health Department that there is a clean bill of health in its favour, and that where infectious diseases have occurred in such places the house should not be let again in apartments till the medical officer of health is satisfied of the safety and disinfection of the premises. It should be the boast of a watering-place or health resort to give reasonable publicity to its infectious diseases, instead of, as I fear is the case at present, suppressing information as much as possible. It is surely the interest of such places, in the long run, to prevent the scandal of attracting people for health purposes and infecting them with grave diseases.

I am, Sirs, your obedient servant,

Highbury, June 4th, 1894. J. GREY GLOVER.

THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—The reporting of the General Medical Council meetings by THE LANCET is usually so accurate that I seldom take the trouble to read my own speeches, and hence I did not read certain words which were put into my mouth in your issue of May 26th until my attention was accidentally called to them by seeing them quoted elsewhere. In the report of the discussion on midwives' certificates, after the text of an amendment proposed by Sir William Turner—an amendment which I took part in drafting, which I seconded, and which was carried—I am made to say something about the preceding resolution being "trades unionism run mad." May I say that I never uttered any such expression, nor did I hear it uttered by any other speaker in the debate. But my chief object in writing to you is to put on record that I seconded the amendment.

I am, Sirs, yours faithfully,

R. BRUDENELL CARTER.

Queen Anne-street, W., June 3rd, 1894.

"AN INTERNATIONAL SYSTEM OF ELECTRO-THERAPEUTICS."

To the Editors of THE LANCET.

SIRS,—In the review of the above your reviewer kindly notices my article on Static Electricity and calls attention to my indebtedness to Professor Oliver Lodge, quoting two sentences from the paper in question and pointing out the almost identical language to that used by Professor Lodge. As this might be misunderstood by some readers of the review I would ask your kind permission to allow me to make an explanation. On the second page and a few lines above would be found: "The chief exponent of these modern views is Professor Oliver Lodge, whose treatment of the subject will occupy our attention in the earlier pages." Besides Professor Lodge I have laid other authors under contribution, notably De Tanzelman ("Electricity in Modern Life"), and Poyser ("Electricity and Magnetism"), whose names I am sorry are not mentioned in the text. The MS. was sent off in a hurry without a bibliographical index, as I intended. I wrote to the editor almost immediately and had his assurance that the proofs would be sent to me for correction and that I could make what additions I wished. The proofs were not sent, and the article appeared in its present form.—I am, Sirs, yours faithfully,

June 4th, 1894. THE WRITER OF THE ARTICLE.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Quarterly Return of the Medical Officer of Health for Manchester.

THE return for the quarter ending March 31st, 1894, has just been issued by Dr. Niven. It is valuable as giving a record of the public health at the time, and the statements it contains should incite to greater sanitary efforts. Of infectious diseases 750 fresh cases were reported, against 1053 in the preceding quarter, and 794 the corrected average for the first quarters of the previous three years. Sixteen cases of small-pox were reported, 1 of which was fatal. In the last quarter of 1893, 4 cases occurred, and 15, 215, and 385 respectively in the third, second, and first quarters of the same year. A fourfold increase in the last quarter over the preceding one is not satisfactory, and it shows the need for careful and unceasing watchfulness. This is borne out by the fact that the average per week for the last six weeks has been 6·7. The reported cases last quarter were equal to an annual rate of 0·12 per 1000 of the city population, against one of 0·03 for last quarter. The incidence was heaviest in the old township of Manchester, where it equalled 0·41 per 1000 annually; 448 cases of scarlet fever were reported, equalling a rate of 3·44 per 1000 living, against 656, equalling a rate of 5·09 in the previous quarter, and 2·71 the average rate for the first quarters of the years 1891–93. The disease was most prevalent in north and south Manchester, where the attack rate was equal to 4·06 and 4·05 respectively, while in the Manchester township it was only 1·88. In the twelve selected notification towns in the North of England the rate was somewhat higher, being 4·32 per 1000. Liverpool being the highest, with a rate of 8·06; 117 cases of diphtheria and 25 of membranous croup were reported, being equal to a rate of 1·09 per 1000, as compared with 138 cases of diphtheria and 17 of membranous croup, equalling a rate of 1·20 per 1000 during the last quarter of 1893. Here it may be noticed that the oldest and most insanitary township was the most lightly visited; 127 cases of enteric fever, equalling a rate of 0·98 per 1000, were reported, as against 1·20, the average rate in the first quarters of the previous three years. In the twelve selected notification towns it averaged 1·27, ranging from 0·20 in Huddersfield to 2·15 in Liverpool. Measles does not seem to have been excessively prevalent in the last quarter, but whooping-cough is above the average of the previous three years. The old Manchester township has suffered more than the others as regards small-pox and enteric fever, but least from scarlet fever and diphtheria. At the beginning of the last quarter 283 patients were in one or other of the hospitals for infectious disease, and during the thirteen weeks 402 were admitted, being 341 fewer than in the first quarter of 1893. Of these 43 were found to be suffering from other acute diseases. Deaths.—In the thirteen weeks 3014 deaths were reported, being equal to a corrected annual rate of 22·6 per 1000 of the population. In the first quarters of the previous three years it averaged 26·2 per 1000, so that last quarter's rate was nearly 14 per cent. below the mean. In the Manchester township it was 28·8, in North Manchester 17·5, and in South Manchester 21·7 per 1000, so that the fatal supremacy of the old township is still maintained. The rate of infant mortality was 168 per 1000 last quarter, against 180 in the previous one. In the old township it was 181 per 1000. In this township the deaths from phthisis were as high as 3·33 per 1000, against 2·23 in the city generally. The deaths from diseases of the lungs and air-passages other than phthisis were somewhat below the average; but in the old township the rate was 8·02 per 1000, almost twice as high as in the other two townships. It is evident, therefore, that this district requires special attention from the medical officer of health and the sanitary committee of the corporation. Much of it lies low, near the banks of a stream, which is at present no better than an open sewer; the houses are old and dilapidated; while the inhabitants are in the main the most degraded and the dirtiest of the citizens.

Victoria University.

An interesting ceremony took place the other day in the election of Professor Ward, the Principal of Owens College, to the Vice-Chancellorship of the Victoria University. No better selection, either academically or socially, for filling this distinguished position with ability and dignity could have been made. Professor Rendall, the retiring Vice-Chancellor, said that in the four years during which he had held the office the candidates for university examinations had practically doubled, having increased from 387 to 762. The number of degrees conferred were 50 in 1890, 70 in 1891, 85 in 1892, and 117 in 1893. This year the candidates for examination were already 600. These figures show the position the University has already gained, and the rapidity with which it has won its way to the confidence of the people in the North of England.

Post-Graduate Lectures.

Post-graduate lectures have been given for some time at the various hospitals in the summer months, and to suit the convenience of the medical men who attend them they are usually given in the afternoon. A request has been made to the Board of Management of the Manchester Royal Infirmary by the Medical Board to allow some of these lectures to be

given in the wards in the afternoon, but it has been somewhat curtly refused. Some of the lectures can no doubt be given at Owens College, but others which are rather clinical demonstrations than lectures cannot be given away from the hospital, and have in consequence to be abandoned. It has sometimes been thought that the closer alliance now subsisting between the college and the infirmary would lead to a clearer apprehension on the part of the authorities of the latter of the methods and requirements of advanced medical education, but this, apparently, was a mistake. The decision of the Board stands in the way of a public benefit, and it will be unfortunate if this obstructive position is maintained.

Two-cart System.

For many years it has been a common thing to see two carts and two horses passing along the streets in charge of one man. It is a practice not unattended with danger, as the horses cannot be under full control, and it is moreover cruel to the animals themselves. The second horse is tethered by the neck to the back of the first cart by means of a rope, or perhaps more frequently by a chain. The movements of the two horses are rarely synchronous, the second seldom starts at the same moment as the first, and so gets a drag on its head; while in the numerous cases where the first is stronger or speedier, the continuous dragging by the neck of the unfortunate second animal, is productive of much cruel suffering. The object of this arrangement is, of course, to save a man's wages. It has long been a scandal, but has survived many attempts to put a stop to it, both within the Council and elsewhere. Now, however, there is some hope that its end is near, as the House of Commons has sanctioned a clause in a Bill promoted by the Corporation, prohibiting this two-cart system within a radius of two miles from Albert-square. The reason for this limitation of area is not apparent.

June 2nd.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Proposed Site for the Newcastle Royal Infirmary.

THE committee appointed by the governors of the Newcastle Royal Infirmary are to meet the Town Moor authorities this month in reference to the site for the new building. The place selected is a portion of the town moor called the Leazes, and, in the opinion of many, is not a very desirable situation. An extension of the Leazes Park has been made lately into what is practically a new and beautiful park, and if the authorities would grant a site at the north side of this new park they would do a graceful act; nor, considering how much has been done by private individuals in Newcastle in this direction for their city, is it too much to ask. Then a building might be erected worthy of its purpose, worthy of Newcastle, and at the same time nearer the colleges.

Cottage and Village Homes.

The deputation appointed by the Newcastle guardians to visit the various unions in which separate institutions have been established and the housing and instruction of the workhouse children have reported the result of their visit. In every instance the deputation was most agreeably surprised with the success of these homes, and in this respect Newcastle was fifty years behind other unions possessing such institution. They recommended, however, that another deputation of a more representative character be appointed to see the homes. The report was formally adopted. The unions visited were Salford, Chorlton, Manchester, Warrington, Liverpool, West Derby, and Birmingham. The village homes at Whitley have been inspected by H.M. Inspector Colonel Inglis, who said: "I have found them, as I have always done, in a perfect state of efficiency. The houses are models of what such houses should be, and anything like the brightness and cleanliness which one sees in every direction I never saw exceeded in any other institution." The appearance of the girls was very satisfactory.

Diphtheria at Byers Green.

Dr. Kane has laid a letter before the Auckland Sanitary Authority asking for urgent attention to Byers Green. For thirteen months, he said, diphtheria had been prevalent, and now the disease seemed to have localised itself. He wished to know what to do, as the villagers visited infected houses indiscriminately, and the counsel he gave them as to prudence in such matters was disregarded. As a result the medical officer and inspector were commissioned to make an investigation into the causes of the disorder, whilst handbills offering counsel to the inhabitants will be issued.

Forthcoming Ambulance Review.

Arrangements have been made to hold an ambulance review in the Recreation Ground, North-road, Newcastle, on the 21st of July next, when it is expected that about 1500 ambulance men will be present. The proceeds, less expenses, will be handed over to local charities.

Handsome Bequests by a Sunderland Lady.

The late Mrs. George Foreman, of Thornhill Park, Sunderland, has left the sum of £3000, free of duty, to Wearside charities, religious and philanthropic institutions, including to the Sunderland Infirmary £1000 and to the Sunderland Eye Infirmary £400.

Small-pox in Lanchester Union.

Small-pox has again appeared in the Lanchester Union, a new case having broken out at Allendale Cottages. The patient was removed to the Leadgate Fever Hospital.

Newcastle-on-Tyne, June 6th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Edinburgh Town Council and the Spread of Small-pox.

AT the meeting of the Edinburgh Town Council last week a letter was read from the medical officer of health as to the prevalence of small-pox. In his letter he said that as eighteen fresh cases of small-pox had been reported during the week he felt bound to draw the attention of the council to the fact. Notwithstanding the prompt notification of cases in Edinburgh there was great danger of its continued extension from the proximity of the burgh of Leith, to which town the infection of most of the cases had been traced. It was, therefore, important that the two corporations should work harmoniously and promptly in stamping out the epidemic. The time, he considered, had arrived when, in his opinion as their medical adviser, they should call on the Leith authorities, in the first instance as a matter of neighbourly friendship, to adopt without delay the Notification Act; and as in the present emergency their hospital accommodation might be scanty this step would enable the Leith Corporation more satisfactorily to enforce isolation at home—a measure which, though admittedly imperfect, might be of much benefit in checking the progress of the epidemic. This letter, on the motion of the Lord Provost, was remitted to the Health Committee on the understanding that Leith should be formally communicated with on the subject. It was intimated at the meeting that there were 317 patients in the city hospital, 52 of whom were suffering from small-pox, and 142 from scarlet fever.

The Lord High Commissioner.

The Lord High Commissioner to the General Assembly and the Marchioness of Breadalbane have paid their usual visits to the various hospitals in Edinburgh. The Marchioness also opened a bazaar at the Longmore Hospital for Incurables, the articles for sale having been made or provided by the patients for the benefit of the institution.

Small-pox in Leith.

Small-pox still continues to spread in Leith. The exact number of cases is not known, as some of the medical men do not report their cases, owing to the Notification Act not being in force. Notwithstanding that many cases must, under the circumstances, be treated at home, the hospital accommodation has had to be still further increased. The *Scotsman* of Wednesday last week stated in a leading article that they "have received information to the effect that the small-pox hospitals in Leith are utterly unfit for their purpose, and that there are no sufficient conveniences for the treatment of the patients who may come in." This is a grave charge and one which would not be made lightly by the *Scotsman*, and, if correct, surely demands interference from headquarters; if the Secretary for Scotland does not possess the necessary power it is time he did.

Draft Ordinance on Qualifications for University Chairs.

The Scottish Universities Commission have issued a draft ordinance on the qualifications of candidates for University chairs. Acting under the powers given to them by the Act,

they ordain: That in the case of a vacancy in any professorship in any University the University Court shall advertise such vacancy, and shall request candidates to submit evidence of their qualifications on or before a date to be fixed by the court; that the Senatus Academicus shall thereafter appoint a committee of not more than five of its members, to whom the evidence submitted by the candidates shall be transmitted, and who shall consider the same and present to the patrons of the vacant chair a detailed and reasoned report on the candidates' qualifications; and that this ordinance shall come into force from and after the date of its approval by Her Majesty in Council.

Opening of the Duddingston Convalescent Home.

This home is in connexion with the Edinburgh Medical Missionary Society, and was recently bequeathed to that society by Mrs. Margaret Sanson. The house and grounds, which were her private residence, were opened as a convalescent home by the Lord High Commissioner. Sir T. Grainger Stewart, who is president of the society, detailed the history of the society. The Lord High Commissioner warmly congratulated Sir Grainger Stewart on the honour the Queen had conferred upon him.

June 4th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons in Ireland.

THE annual elections for the Council, &c., took place last Monday. The new names added to the Council are Dr. A. H. Jacob, late secretary to the Council, and Mr. Arthur Chance, surgeon to the Mater Misericordiæ Hospital. The annual report of the Council for the year ending April, 1894, shows that during the year fifteen candidates, having passed the examinations, were admitted to the Fellowship, seventy-four received the Letters Testimonial, and ten received the licence in Dental Surgery. In consequence of a resolution of the Fellows, adopted last July in reference to the financial condition of the College, in which it was recommended that the salaries and fees of certain officers employed by the College should be reduced by 25 per cent., a Special Economy Committee was appointed, who made certain suggestions, which were adopted by the Council. By them the secretary of Council and the registrar of the College had their salaries reduced by 25 per cent. each, the examiners' fees reduced by 50 per cent., and for the present the payments made to the members of the Committees of Management, both of the Royal College of Physicians and the Apothecaries' Hall, were discontinued. Other subjects in the report include the reduction of the diploma fee, the conjoint examinations of the College and Apothecaries' Hall, and the Vaccination Acts' Amendment Bill.

The Medico-Psychological Association.

The annual meeting of this association will be held in Dublin next week. The foreign visitors will include Professor Benedikt of Vienna; Dr. Jules Morel, Inspector of Asylums in Belgium; Dr. René Semelaigne, Secretary to the Medico-Psychological Society of France; and Dr. Curwen, President of the American Medico-Psychological Association. Professors Cunningham and Fraser will attend and give demonstrations. The presidential address will be delivered by Mr. Conolly Norman.

Antiquarian Discovery.

A large stone boulder has been found on the farm of Mr. Connolly, J.P., of Rassanmore, county Louth, which may prove of great interest and importance. Two of the sides of the stone have deeply cut markings, somewhat resembling ancient Ogham (pronounced Owam) characters. Rubbings of the stone were submitted to the Bishop of Limerick, a noted antiquary, who considers the markings genuine but very peculiar, and beyond his power of elucidation. A tracing sent to Prof. Rhys, Professor of Celtic in Oxford University, has not obtained any decided opinion. The Ogham inscriptions that have been deciphered have generally been sepulchral monuments, but this inscription has puzzled the highest authorities on Celtic or Druidical markings.

Irish Medical Association.

The annual meeting was held on Monday, June 4th, the chair being occupied by Mr. Austin Meldon, D.L., the outgoing president. The council in their annual report drew attention to the large number of Poor-law medical officers who apparently take no interest in matters relating to their position, and stand aloof, declining to strengthen the hands of the association by joining its ranks.

June 5th.

Obituary.

THOMAS PATTERSON, B.A., M.D.Q.U.I.

WE have to record the death of Dr. Thomas Patterson, medical officer of health of Chadderton, medical officer of the Oldham Union, and county councillor for Chadderton, in the forty-fifth year of his age, on June 2nd. A remarkable man has disappeared from the life of the Oldham district, and one whose loss will be widely and severely felt. Twenty-two years ago Dr. Patterson took up his abode in the district of Chadderton, near Oldham, and shortly after his arrival he was appointed medical officer to the Oldham Union Infirmary. During the whole of the intervening period his relations with the Oldham guardians have been of the most cordial character, nor has any friction marred the discharge of the important duties which he has so long fulfilled. Gifted with a clear intellect and a keen wit he never hesitated to convey in a trenchant manner the opinions which he held. But withal his strong individuality acted as a charm on everyone with whom he was brought in contact and neutralised the effects of difference of opinion. Abstemious to a degree in his personal indulgencies, he was most generous on many occasions to others, and his death has come as a great blow to his patients, who have lost in him a skilful adviser and a friend. For twenty-two years he had also held the position of medical officer of health to the district of Chadderton, and in that capacity he exhibited the utmost interest and activity in relation to all sanitary matters. During the outbreak of small-pox in 1886 he, at an early period, called attention to the probability that the Oldham Small-pox Hospital was the means of spreading the disease in the neighbouring district of Chadderton, an opinion which has subsequently been strengthened. He was a consistent advocate for the removal of small-pox cases to a great distance from centres of population. It is, however, in connexion with the smoke question that Dr. Patterson is best known. Finding that the local authorities were not disposed to pursue a vigorous policy in regard to the emission of smoke from manufacturing chimneys, and holding strongly that the pollution of the atmosphere by smoke is injurious to the health and comfort of the community, Dr. Patterson, in his private capacity, at his own expense, and in the face of much hostile feeling, availed himself of the powers given by the Public Health Act of 1875 to enforce reform. In this crusade he was subjected to much wear and tear, acting, as he did, as his own lawyer, and, indeed, during his brief illness he was worried by the fact of having a large number of cases of prosecution for smoke offences impending. He had, however, the gratification of knowing that the influence of his work was not only fully recognised in his own district but had extended to surrounding towns, and of discovering that many who had been exceedingly bitter at the commencement of these proceedings had turned to be his admirers and supporters. About a month ago he was presented with a gold watch by a few friends as a token of regard and of recognition of his public service, in respect of which it is well known that he had consistently refused the pecuniary aid pressed upon him. A year ago he was returned unopposed as member of the Lancashire County Council for Chadderton, a position which we believe he accepted in the hope that he would thus be enabled still further to promote the cause of a pure atmosphere. It only remains to say that the loss of Dr. Patterson's complex but striking and attractive personality to those who were fortunate enough to be on intimate terms with him, will be a severe and lasting one.

WILLIAM MARSDEN, M.R.C.S. ENG.

THE death is announced of Mr. William Marsden at Southport in his eighty-second year. As a student at University College, London, he gained the gold medal for Materia Medica, and qualified as M.R.C.S. and L.S.A. in 1836. After studying in the hospitals of Paris he returned to Yorkshire and became medical officer of health for Mirfield, Ravensthorpe, and Thornhill. He also acted for thirty years as surgeon under the Factory Acts, and was at one time medical attendant to the police.

Medical News.

MEDICAL MAGISTRATE.—Mr. Robert Harrison Wilson, M.D.Durh., M.R.C.S., has been placed on the Commission of the Peace for the borough of Gateshead-on-Tyne.

MIDDLESEX HOSPITAL.—At a quarterly general court of this hospital held on the 31st ult. it was announced that plans and specifications for the new operating theatre of the hospital had now been completed, and a tender for executing the work at a cost of £3296, together with another tender for the ventilation and heating at a cost of £1129 16s., had been accepted.

OUTBREAK OF SMALL-POX IN DUBLIN.—Our Dublin correspondent telegraphs as follows:—"Small-pox has appeared among the inmates of the North Dublin Workhouse. The disease commenced with a man named McKenna, who had not been out of the union for several months previously. The cases, six in number, have been transferred to the Hardwick Hospital. The inmates are being vaccinated or revaccinated, and the utmost energy has been shown by the workhouse officials in preventing the disease spreading."

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—Dr. Eduard Sperk, formerly Medical Inspector for Eastern Siberia and author of many reports on the infectious and other diseases of that country. Of late years he was senior medical officer of the Kalinkin Hospital, St. Petersburg, and lecturer in the Institute of Experimental Medicine.—Dr. Nikolai Alexêevich Stroganoff, Senior Physician to the Odessa City Hospital and a frequent contributor to the *South Russian Medical Gazette*. He wrote on pneumonia, diphtheria of the intestines, trichinosis, &c. His age was fifty-two.

PRESENTATIONS TO MEDICAL MEN.—On the occasion of the conclusion of his year of office as Mayor, Dr. Alexander Croucher was accorded a vote of thanks by the Hastings Town Council for the impartial manner in which he had carried out his official duties. The vote, which has been embodied in an illuminated address upon vellum and mounted in a handsome gold frame, was presented to Dr. Croucher on Friday last, June 1st.—The members of the Coventry police force have presented a silver-mounted walking stick to Mr. M. W. Oldham, L.R.C.P. Lond., M.R.C.S. Eng., as an acknowledgment of their gratitude for his services as instructor in the duties of ambulance work.

FOREIGN UNIVERSITY INTELLIGENCE.—*Budapest:* Dr. J. Donath has been recognised as *privat-docent* in Neuropathology, and Dr. Paul Terray as *privat-docent* in Medicine.—*Geneva:* Dr. S. Keser has been recognised as *privat-docent* in Dermatology and Syphilis.—*St. Petersburg (Military Medico-Chirurgical Academy):* Dr. Pashutin, Professor of Experimental Pathology, has retired and becomes Emeritus Professor; Dr. Polotebnoff, Extraordinary Professor of Dermatology, has been promoted to the rank of Ordinary Professor. *Kharkoff:* Dr. Cherevkoff has been recognised as *privat-docent* in Physiology.—*Cracow:* Dr. Anton Rosner has been promoted to the rank of Ordinary Professor of Dermatology and Syphilis.—*Kazan:* Dr. M. P. Sergêeff has been recognised as *privat docent* in Pharmacy and Pharmacology.—*Berlin:* Dr. Karl Posner, *privat-docent* in Internal Medicine, has been granted the rank of professor. He was secretary of the German Committee at the Rome Congress.—*Gratz:* An offer of an ordinary professorship has proved an insufficient inducement to Dr. Escherich to remain. He has decided to accept the invitation to become Heubner's successor as Professor of Children's Diseases in Leipsic.—*Toulouse:* Dr. Labéda, Professor of Operative Medicine, has been appointed Dean of the Medical Faculty for a term of three years.—*Vienna:* Dr. Sternberg has been recognised as *privat-docent* in Medicine; Professor Czerny of Heidelberg has decided to remain where he is in preference to becoming the successor of Billroth. It is now expected that Professor Mikulicz of Breslau, who stood second on the list sent up by the professorial senate, will accept the chair. It is, however, understood that the appliances and accommodation for clinical teaching are far from perfect. Dr. Albert Neisser, Professor of Dermatology in Breslau, has been appointed to accompany the Danish Commission which is about to proceed to Iceland for the purpose of investigating the question of leprosy as it exists there.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Fellows, held on Monday, June 4th, the following gentlemen were elected for the ensuing year:—President: William Thornley Stoker. Vice-President: William Thomson. Secretary: Sir Charles A. Cameron. Council: Sir George Porter, Bart., Archibald Hamilton Jacob, Edward Hallaran Bennett, Sir Philip Crampton Smyly, Robert Lafayette Swan, Henry Rosborough Swanzy, William Ireland Wheeler, Austin Meldon, William Carte, Sir Charles Alexander Cameron, Frederick Alcock Nixon, Kendal Franks, Charles Bent Ball, John Benjamin Story, Henry Fitzgibbon, Francis T. Heuston, Humphrey John Broomfield, John Lentaigne, and Arthur Chance.

MODEL ABATTOIRS.—Sir Benjamin Ward Richardson, the President of the London Abattoir Society, delivered an important address on Thursday last on the food of the people. Referring to the formation of the London Model Abattoir Society, nine years ago, the chief points considered, he said, were the health of the men engaged in the work, the healthy condition of the abattoirs, and the state of health in which the animals themselves were. The efforts of the society to establish a model abattoir in which to demonstrate the system they wished to adopt had been rendered futile by the difficulty of obtaining a convenient site. The society were of opinion that every county should elect a committee, which, like the Jewish shechita, should fully superintend the preparation of animal food.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Examinations for Sanitary Inspectors.

MR. CORNWALLIS has given notice that in the course of next week he will ask the President of the Local Government Board whether he has yet decided to grant to the Sanitary Inspectors' Association representation on the Joint Examining Board proposed to be created for the holding of examinations for sanitary inspectorships and the granting of certificates of competency under the provisions of the London Public Health Act of 1891.

The Vaccination Question.

Mr. Hopwood has introduced into the House of Commons a Bill "to abolish the compulsion to vaccinate," and it has been backed by Mr. Channing, Mr. Byles, and Dr. Clark. The Bill contains one enacting clause, which is to this effect: "No person shall henceforth be compelled to vaccinate or cause to be vaccinated any child or young person under the age of fourteen years, and all prosecutions in respect of the neglect or refusal to vaccinate or cause to be vaccinated shall cease and determine, and any law or statute compelling to vaccinate or cause to be vaccinated is hereby repealed." Having regard to the state of business in the House, there is almost no chance of the Bill being discussed during the present session.

HOUSE OF COMMONS.

THURSDAY, MAY 31ST.

A Veterinary College for Dublin.

In reply to a question, Mr. John Morley said that the introduction of the Bill for assisting the establishment of a veterinary college in Dublin awaited the completion of the necessary preliminaries by the gentlemen promoting the College.

Experiments on Living Animals.

Colonel Lockwood addressed a series of questions on this subject to the representative of the Home Department.—Mr. George Russell, in the course of his reply, said that, as stated in Table III of the Parliamentary paper, no return was received from Messrs. Lin Boon Keng, Otto Lang, and Conrad Gerland, nor from the late Dr. Romanes. The inspector ascertained in the cases of Messrs Romanes and Gerland, from inquiries at the laboratories where the licences were available, that they had not performed any experiments, and therefore included their names in Table II. From similar inquiries in the case of Messrs. Keng and Lang he ascertained that they had performed experiments, and therefore included them in Table I. The licences to persons included in Table II. were renewed from time to time because for various reasons the licensees were unable to take up that work in one year, whereas they were in another, and some (such as Professor Brown) held such licences in case they had to perform experiments with regard to the cattle disease or for judicial purposes. The number of animals experimented upon might be taken as closely corresponding to the number of experiments—viz., 4046. The names of the kinds of animals were all reported to the inspector, except those animals that were experimented on under Certificate C. or under a licence without a certificate, all such experiments being upon animals in a state of complete anæsthesia.

FRIDAY, JUNE 1ST.

Mr. Gardner informed Mr. Chaplin that the lung of an animal landed from the *Toronto* on May 20th had been examined by the veterinary officers of the department, and they had reported that the appearances presented were those of pleuro pneumonia.

Metropolitan Police-stations.

Mr. Spicer asked the Home Secretary whether the committee of inquiry into prison administration would be extended to police-stations and other places of temporary detention in the metropolis where women or children were, during their detention, without the continuous and personal control of police-matrons.—Mr. Asquith said he did not feel justified in enlarging the reference to the committee. The subject was one of considerable importance, and had engaged his personal attention for some considerable time. Women had been engaged at the police-stations to look after the females who were arrested and detained, and the result so far was satisfactory. He was considering, in consultation with the Commissioner of Police whether any and what changes were desirable in the direction indicated.

TUESDAY, JUNE 5TH.

Anthrax.

Mr. Gardner, replying to Mr. Fellowes, who wished to know whether a committee would be appointed to inquire whether anything could be done to stop the serious consequences of the disease, not only to live stock, but in some cases to human beings also, thought that no advantage would be gained by the appointment of a special committee on the subject.

THURSDAY, JUNE 7TH.

Operations upon Minors.

Mr. Channing addressed a question to the Secretary of State with reference to the case of Arthur Thomas Payne, who died on Wednesday, May 31st, in King's College Hospital, during an operation under chloroform. He wished to know whether the Home Secretary would take steps, by legislation or otherwise, to require the authorities of King's College and other hospitals to give notice to parents of patients who are minors when operations involving risk of a fatal result are decided upon.—Mr. Asquith said he was informed by the secretary of the governing body of King's College Hospital that the young man referred to was twenty years of age. Soon after his admission on March 14th his mother was informed that an operation would be requisite, and she gave her consent without qualification and without any such proviso as was alleged. There did not, so far as he knew, appear to be any sufficient ground for legislation of the kind suggested by his hon. friend.

IN COMMITTEE.

The Scottish Local Government Bill: The Appointment of Medical Men.

The Grand Committee of the House of Commons, to which the Scottish Local Government Bill has been referred, met again on Tuesday, June 5th, and among other things dealt with in the measure considered the clause constituting a Local Government Board in Scotland to take the place of the present Board of Supervision. In its original form this clause proposed that of three members nominated to the new Board by the Secretary for Scotland one should be a registered medical practitioner, who should also be registered on the Medical Register as the holder of a diploma in sanitary science, public health, or State medicine under Section 21 of the Medical Act of 1886.

Mr. Provand moved to delete this portion of the clause in order that he might have an opportunity afterwards of moving, "And the remaining members shall be appointed from persons having special experience in county, municipal, or poor-law administration in Scotland."

Mr. Parker Smith thought that, instead of having a medical expert upon the Board, it would be better to have an official with an adequate salary whose services would be at the disposal of the Board. This official would be the medical expert adviser of the Board, and would be of the greatest value. He could see no reason why a medical man should have a seat on the board any more than a civil engineer.

Sir Charles Cameron said that this new body would have to deal with matters affecting law and matters affecting public health. Already the committee had decided to have a lawyer on the Board, and he thought, to make the scheme complete, they must have a medical man.

Dr. Farquharson concurred in this view of the case, and said he objected to sanitary medicine being put in a position of invidious inferiority. He felt certain that the services of the medical member of the Board would prove most valuable. He could be appealed to at any moment and make his authority felt, and he would speak with all the more authority through being a member of the Board. It had been said that he would frequently be sent away from headquarters upon inspectorial duty, but it should be remembered that in all the great centres in Scotland there were eminent experts, and it would only be in exceptional cases that the member need leave the Board for work of this kind. On the Local Government Board in Ireland they had a man of the highest professional character, and he thought they could not do better than follow the Irish precedent.

Captain Sinclair submitted that the strongest reasons for not making this medical man a member of the Board were to be found in the nature of the duties.

Mr. T. W. Russell said that in Ireland they were perhaps the most "boarded" country in the world, and if they had one good and useful board it was that which had charge of local government in Ireland. He could see a good reason why lawyers as experts need not be upon this Board in Scotland. When a question of law arose it could be submitted to the law officers of the Crown, and it was generally of a character which could wait. But upon a board of this kind urgent questions of sanitation might arise. These questions could not wait for opinions to be had outside, and it was for that reason that in Ireland, at all events, a medical officer was part and parcel of the Board.

Sir Charles Pearson said he very much doubted whether the medical profession in Scotland would care to have a medical expert upon the Board.

Mr. Cochrane did not think the Irish precedent could be applied to Scotland, for in Ireland they did not know local government as it was known in Scotland. His view was that it should be left to the Secretary for Scotland to select the best man he could find, irrespective of one profession or another.

Sir George Trevelyan, the Minister in charge of the Bill, said that the Government had no desire to impose a cut-and-dry scheme upon Scotland, but they thought that so striking a precedent as that afforded by Ireland should not be passed over. He considered that for the purposes of Poor-law administration it was very desirable to have a medical man upon the Board. That peculiar quality of humanity and sympathy which, perhaps, though it existed in a great number of persons in a latent state, was never more clearly brought out than in the medical profession when properly pursued. For the purposes of sanitary administration he could not believe that there could be any better person appointed than a gentleman who had had great experience as a medical officer in one of the large districts, whether rural or urban. Of course, if the majority of the committee decided the other way, the Government would be prepared to show due respect to the decision. But he must say a word upon the question of salary. In this Bill they were bound to show more respect to the medical profession than hitherto had been shown in connexion with local government in Scotland. At the present moment very eminent services were given for salaries so small that he was ashamed to name them; and, whatever the decision of the committee might be now, he should feel bound not only—as he was doing now—to represent to the committee, but to urge upon them in the strongest way that a medical man should be attached to the department who should have a really adequate salary. The Government were ready to accept the decision of the committee, but he certainly hoped the decision would be in favour of keeping the provision for a medical man being upon the Board as a member.

Mr. Graham Murray argued that medical men, being without training for such work, would be totally unfit to sit in judgment, as the members of this Board would be called upon to do. Moreover he said that they could not get a successful public health official who was not an enthusiast or even he might say a faddist.

Mr. MacGregor said that this objection to the medical member came with a bad grace and very bad taste from gentlemen of the legal profession. The medical profession had in all times given much labour and advice and opinion free while the legal profession never thought of doing such a thing, and he wanted to know why lawyers should have a monopoly of this new Board.

Mr. Harry Smith spoke in favour of a medical man being on the Board.

On a vote being taken Mr. Provand's amendment was rejected by 36 votes to 27.

Mr. Caldwell moved to add the words after practitioner "of not less less than seven years' standing."

Sir Charles Cameron thought it would be unwise to make this addition.

After a short discussion Mr. Caldwell withdrew his amendment.

Dr. Farquharson moved as an alternative to the holding of a diploma in sanitary science, public health, or State medicine, "or who has been for a period of not less than five years medical officer of a large urban or rural district with a population of over 50,000." It was desirable, he said, to make this appointment open to the very best medical men in Scotland, and he found that at least four of these did not hold the diploma in public health. In these circumstances he thought it well to move this amendment.

Sir George Trevelyan said he was ready to accept this amendment. In this matter they were following the policy of the late Government in the Bill which set up the county councils. The late Government, looking to the extreme importance in the future of having a trained body of men in the position of local medical officers of health, laid it down that no one should be appointed who was not the holder of a diploma in sanitary science, State medicine, or public health. Existing officers of health were very properly exempted by the provision.

The Lord Advocate suggested that the population limit might be deleted from the amendment.

As the result of some further discussion it was agreed to pass the amendment in this form: "Or who has been for a period of not less than five years medical officer of a county or burgh."

Mr. Parker Smith moved an amendment to the effect that the medical man should "not hold any other appointment or engage in private practice or employment."

Sir George Trevelyan and others having expressed approval of this amendment, it was accepted by the committee and incorporated in the clause.

BOOKS ETC. RECEIVED.

CONSTABLE, A., & CO., 14, Parliament-street, Westminster, S.W.
Thames Rights and Thames Wrongs: A Disclosure, with Notes Explanatory and Critical on the Thames Bill of 1894. By C. H. Cook, Barrister-at-Law. 1894. Price 1s. 6d.

GRIFFIN, CHARLES, & COMPY., Exeter-street, Strand, London, W.C.
Official Year-Book of the Scientific and Learned Societies of Great Britain and Ireland. Compiled from Official Sources. Eleventh Annual Issue. 1894. pp. 234.
Clinical Medicine: a Manual for the Use of Students and Junior Practitioners. By Judson S. Bury, M.D. Lond., F.R.C.P. Illustrated. 1894. pp. 468.

HEYWOOD, J., Amen-corner, London, and Manchester.
Defects in Plumbing and Drainage Work. Described by Francis Vacher. Illustrated. Price 1s.

KEGAN PAUL, TRENCH, TRÜBNER, & CO., Charing-cross-road, London.
Manual of Hygiene. By J. W. Wallis. 1894. pp. 150. Price 2s. 6d.

KIMPTON, H., High Holborn, London, and HIRSCHFELD BROTHERS, Bream's-buildings, Fetter-lane, London.
The Health Resorts of Europe. By Thos. Linn, M.D. Second Edition. 1894. pp 332. Price 2s. 6d.

LEWIS, H. K., Gower-street, London, W.C.
Diseases of the Nose and Throat. By F. De Havilland Hall, M.D., F.R.C.P. Lond. Illustrated. 1894. pp. 524. Price 10s. 6d.

LONGMANS, GREEN, & CO., London.
Micro-organisms in Water: their Significance, Identification, and Removal. By Percy Frankland, Ph.D., B.Sc. Lond., F.R.S., and Mrs. Percy Frankland. 1894. pp 532. Price 16s. net.
Quain's Elements of Anatomy. Edited by E. A. Schäfer, F.R.S., and Geo. D. Thane. In three vols. Vol. III., Part III: Organs of the Senses. By Professor Schäfer. Illustrated. Tenth Edition. 1894. pp. 165. Price 9s.

MASSON, G., Paris.
Leçons de Thérapeutique. Par Georges Hayem. Les Agents Physiques et Naturels. Illustrated. 1894. pp. 992.

Traité Pratique des Maladies du Système Nerveux. Par J. Grasset et G. Rauzier. Quatrième Edition. Tomes premier et second. 1894.

Études de Chirurgie Infantile. Les Hernies Inguinales de l'Enfance. Par le Dr. G. Félizet. Illustrated. 1894. pp. 422.

OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, India, Calcutta.

Scientific Memoirs by Medical Officers of the Army of India. Edited by Surgeon-Major-General W. Rice, M.D., C.S.I. Part VIII. 1894.

PENTLAND, YOUNG J., Edinburgh and London.

Atlas of the Diseases of the Skin. By H. R. Crocker, M.D., F.R.C.P. Illustrated. Fasciculus IV.

PHILIP, G., AND SON, Fleet-street, London, E.C.

Local Government Act, 1894: A Practical Guide to Parish Councils and Parish Meetings. By J. Harris Stone, M.A., and J. G. Pease, B.A., Barristers-at-Law. 1894. pp. 201. Price 2s. 6d.

SAUNDERS, W. B., Walnut-street, Philadelphia.

Saunders' Question-Compends, No. 21. Essentials of Nervous Diseases and Insanity: their Symptoms and Treatment. By John C. Shaw, M.D. Second Edition. Illustrated. 1894. pp. 194.

SMITH, ELDER, & Co., Waterloo-place, London.

The Frog: an Introduction to Anatomy, Histology, and Embryology. By A. M. Marshall, M.D., D.Sc. Fifth Edition. Illustrated. 1894. pp. 163.

SOCIÉTÉ D'ÉDITIONS SCIENTIFIQUES, PARIS.

Des Origines et des Modes de Transmission du Cancer. Par Dr. M. Cazin. 1894. pp. 94.

Essais de Chimie Biologique, appliqué a l'Étude de l'Action Physiologique et Thérapeutique des Eaux Minérales de La Bourboule. Par MM. Docteurs L. Heulz et H. Cathelineau.

THACKER, SPINK, & Co., Calcutta.

Hehir's Sanitary Science Series. A Catechism of Hygiene and Sanitary Science. In Fifteen Parts. By P. Hehir, M.D. Camb. Part I.: Water. 1894. pp. 593.

THE F. A. DAVIS COMPANY, Philadelphia; and F. J. REBMAN, Adam-street, Strand, London.

An International System of Electro-Therapeutics. By H. R. Bigelow, M.D., and others. Illustrated. 1894.

THE SCIENTIFIC PRESS, 428, Strand, London, W.C.

The Mother's Help and Guide to the Domestic Management of her Children. By P. Murray Braidwood, M.D., F.R.C.S. 1894. pp. 134. Price 2s. 6d.

THOM, A., AND CO., Abbey-street, Dublin.

Royal University of Ireland: Examination Papers, 1893. A Supplement to the University Calendar for the Year 1894. pp. 644.

WILLIAMS & NORGATE, Henrietta-street, Covent-garden, London.

An Examination of the Theory of Evolution, and some of its Implications. By Geo. Gresswell, M.A., L.R.C.P. Second Edition. 1894. pp. 155.

The Royal Natural History; edited by R. Lydekker, B.A., F.G.S., F.Z.S., with preface by P. L. Sclater, M.A., Ph.D., F.R.S.; illustrated; vol. i., 1893-94 (F. Warne & Co., London).—Ville du Havre: Commission Technique d'Assainissement, Procédé, Hermite; rapports par M. Neveu, M. Loviton, et M. Delachanal (Imprimerie Micaux, Havre, 1894).—"Therapeutical Progress," containing Medical Reports on the New Synthetical Remedies of the Farbwerke vorm. Meister Lucius & Brueming, Hoechst-on-Main, Germany; May; 1894 (at 63, Queen Victoria-street, London, E.C.).—Der Alcohol ein Volkergift; Vortrag gehalten am 9. März, 1894, von Dr. C. Brendel (J. F. Lehmann, München, 1894).—Die Atonische Magenerweiterung und ihre Behandlung; von Dr. C. Wegele (J. F. Lehmann, München, 1894).—De la Symphyséotomie dans les Angusties Pelviennes: Recherches Expérimentales; Faits Cliniques; par Dr. V. Cocq (H. Lamertin, Bruxelles, 1894).—Curtice's Index to "The Times," the London Morning and Evening Papers, One Hundred and Twenty Weeklies, and Thirty-one Provincial Newspapers; July 1st to September 30th, 1893 (Edward Curtice, 221, High Holborn, London).—The English Illustrated Magazine, June, 1894.—Analysis of Twelve Thousand Prescriptions, compiled by W. Martindale, F.C.S. (H. K. Lewis, London, 1894); price 2s. 6d. net.—Archiv für Experimentelle Pathologie und Pharmakologie; 33. Band, 4. und 5. Heft; 22 Mai, 1894 (F. C. W. Vogel, Leipzig).—The Natural History of Plants; Kerner and Oliver; Part 2 (Blackie and Son, Old Bailey, London); price 2s. 6d. net.—Brain: a Journal of Neurology; Part 65; Spring, 1894 (Macmillan & Co., London); price 3s. 6d.—Report for 1893 on the Progress of Pharmacy in its relation to the Future; Revision of "The British Pharmacopœia," 1885; by John Attfield, Ph.D., F.R.S. (Spottiswoode & Co., London).—Duodecim; No. 5; Toukokuu, 1894 (Suomalaisen Kirjallisuuden Seuran Kirjapainossa, Helsingissä, 1894).—The Infectious Diseases (Notification) Act and its Effect in the Large Towns of England; by Dr. Biddle, M.R.C.S.; reprint.—Further Remarks on the Occurrence of a Form of Non-albuminous Nephritis other than Typical Fibroid Kidney; by D. D. Stewart, M.D. Philadelphia; reprint from the "Medical News," April 14th, 1894.—A Serious Fallacy attending the Employment of certain Delicate Tests for the Detection of Serum-Albumin in the Urine, especially the Trichlor-acetic Acid Test; by D. D. Stewart; reprint from the "Medical News," May 5th, 1894.—La Mortalidad de la Ciudad de Montevideo; por el Dr. Joaquin de Salterain (A Vapor de "El Siglo," Montevideo, 1894).—Pyothorax and its Treatment; by Carl Beck, M.D.; reprint (Trow Directory Printing Company, New York, 1894).—On Tubercular and Suppurative Peritonitis; by C. Beck, M.D.; reprint (D. Appleton & Co., New York, 1894).—Laminectomy for Tubercular Spondylitis; by C. Beck, M.D.; reprint (The Bulletin Publishing Company, New York, 1894).—A Few Points on the Treatment of Carcinoma Mammæ; by C. Beck, M.D.; reprint (The Bulletin Publishing Company, New York, 1894).—Some Remarks on the Use of Anæsthetics in Dental Surgery; by A. Maurice, L.D.S.R.C.S. Edin. (Phillipson and Golder, Chester, 1894); price 6d.—Tuberculin as a Diagnostic Agent; by J. W. Springthorpe, M.D. Melb., M.R.C.P. Lond.; reprint (Stillwell and Co., Melbourne, Australia).—Das Kleincaliber und die Behandlung der Schiesswunden im Felde; von Dr. J. Habart (Josef Safář, Wien, 1894).—Les Réactions Leucocytaires vis-à-vis de certaines Toxines Végétales et Animales; par Dr. Gaston Chatenay, Paris (Société d'Éditions Scientifiques, Paris, 1894).—Walks in Belgium; edited by Percy Lindley (published at 30, Fleet-street, London, E.C.); 1894; price 6d.—Extended Tape Indicator, Map of London, and Visitors' Guide (C. Smith & Son, 63, Charing-cross, London, S.W.).—A Synopsis of Clinical Surgery, during the Service of S. H. Pinkerton, M.D., Surgeon to the Holy Cross Hospital; by F. A. Meacham, M.D., Assistant Surgeon. Salt Lake City, Utah, 1892 (Tribune Job Printing Company, Salt Lake City).—Transactions of the Obstetrical Society of London, Vol. XXXV., for the year 1893; Part 4, for October, November, and December, with General Index; Vols. XVI.—XXXII. (Published by the Society, 20, Hanover square, London, W.); price 10s.—Examination Questions in Practice of Medicine, with Answers; Part 2, Skin Diseases; by "Utile Quod Facias" (E. & S. Livingstone, Edinburgh); price 1s. net.—The Senate, the Organ of Aristocracy; June, 1894 (A. P. Marsden, 27, Southampton street, Covent-garden, London); price 6d.—Catechism Series: Physiology, Part 4 (E. and S. Livingstone, Edinburgh); price 1s. net.—Les Nouvelles Idées sur la Structure du Système Nerveux chez l'Homme et chez les Vertébrés; par Dr. S. R. Gajal (C. Reinwald et Cie., Paris, 1894).—The Origin, Aims, Object, and Usefulness of the Incorporated Medical Practitioners' Association; by F. H. Alderson, M.D. (reprint from the "Provincial Medical Journal," June, 1894, Leicester).—The Harrogate Mineral Waters, New Analyses; with Observations by A. Roberts, M.D., D.P.H. (R. Ackrill, "Herald" Office, Harrogate, 1894); price 6d.—Les Universités des États-Unis et du Canada et spécialement leurs Institutions Médicales; par Dr. O. Laurent (H. Lamertin, Bruxelles, 1894).—Pathologie und Therapie der Perityphlitis; von Dr. Eduard Sonnenburg (F. C. W. Vogel, Leipzig, 1894).—Report on the Social Condition of the People, with a Map: the Result of Fifteen Years' Researches; by J. Nyland (J. Davy & Sons, Long-acre, London, 1894); price 6d.—Opinions of Experts on the Hermite Electrical Sanitation Process; being Extracts from Scientific Reports on the Process by eminent Bacteriologists and Chemists (W. H. & A. Nutting, Newington-causeway, London, S.E.).—Health Teaching in Towns and Villages: Rural Hygiene; by Florence Nightingale (Spottiswoode & Co., New-street-square, London, 1894); price 6d.—Magazines for June: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society); The Humanitarian.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALLOTT, W. L., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Hoyland Urban Sanitary District.

BALFOUR, J. M., M.B., C.M. Edin., M.R.C.P. Edin., has been re-appointed Medical Officer for the Presteigne Urban Sanitary District.

BLACK, R. S., M.B., C.M., D.P.H. Aberd., has been appointed Medical Officer in the Government Bacteriological Department of Medical Science in the Cape Colony.

BOGER, W. H., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Lanteglos Sanitary District of the Liskeard Union.

BRYETT, L. T. F., M.B., L.R.C.P. Lond., D.P.H., M.R.C.S., has been appointed Medical Officer of Health for the Parish of Shoreditch.

CAMPBELL, P., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Pontypool Rural Sanitary District.

COLVILLE, J., M.B., B.S. Irel., has been appointed Medical Officer to the Belfast Royal Hospital.

COOPER, W., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Surgeon to the North Devon Infirmary.

CRUICKSHANK, ADAM, L.P., M.B., C.M. Aberd., has been appointed Resident Medical Officer to the British Hospital at Buenos Ayres.

DAVIES, EVAN, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., L.M., has been appointed Medical Officer to the Maesteg Local Board.

DIXON, T., M.B., B.S. Durh., has been appointed Medical Officer and Public Vaccinator for the Earsdon Sanitary District of the Tynemouth Union.

FIELD, EDGAR, L.D.S. Eng., has been appointed Dental Surgeon to the Croydon General Hospital and to the Croydon Provident Dispensary.

FLEMMING, C. E. S., M.R.C.S., has been appointed Medical Officer for the Freshford and Hinton Charterhouse Sanitary Districts of the Bath Union.

GARLAND, E. C., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Borough of Yeovil.

GRIFFITHS, W. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Micheldever Sanitary District of the New Winchester Union.

HARPER, J. R., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Surgeon to the North Devon Infirmary.

HERBERT, A. W. C., L.S.A., has been appointed Medical Officer for the Sixth Sanitary District of the Blything Union, vice Vertue.

HOOD, T. A. F., M.B., C.M. Edin., has been appointed Parochial Medical Officer for Rattray, vice Lunan.

HOPSON, MONTAGU F., L.D.S. Eng., has been appointed Dental Surgeon to the Hampstead Hospital.

JOSEPH, J. J., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the No. 2 Sanitary District of the Parish of Battersea.

KENWOOD, H. R., M.B., C.M. Edin., L.R.C.P. Lond., D.P.H., has been appointed Medical Officer of Health, Stoke Newington.

KIRK, THOS. S., M.B., B.S. Irel., has been appointed House Physician to the Belfast Royal Hospital.

MITCHELL, T., M.D., C.M. Glasg., has been appointed Medical Officer of Health for Llandilo, Talybont, vice Griffiths, resigned.

MORRIS, S. G., M.B., C.M. Edin., has been appointed Medical Officer for the Cwmtwrch and Cwmllynfell Sanitary Districts of the Swansea Union.

PERCIVAL, THOS., M.R.C.S., has been reappointed Medical Officer of Health for the Pontefract Rural Sanitary District.

POWELL, L., L.R.C.P. Edin., L.M., M.R.C.S., has been appointed Medical Officer for the No. 2 Sanitary District of the Shepton Mallet Union.

ROBERTSON, J., M.D., B.Sc. Edin., has been appointed Medical Officer of Health for the Borough of St. Helens, vice McNicoll, resigned.

RUDD, W. A., M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer of the Infirmary for the Parish of St. Mary Abbotts, Kensington.

STANWELL, ST. JOHN, M.B., C.M. Edin., M.R.C.S. Eng., has been appointed House Surgeon to the Stamford, Rutland, and General Infirmary, vice Macaulay, resigned.

STEPHENS, EDWARD, L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Chard Rural Sanitary District.

TAYLOR, D. M., M.B., M.S. Glasg., has been appointed Medical Officer for the Bromley Workhouse of the Stepney Union, vice Kennedy, resigned.

THOMSON, D. G. P., M.B., C.M. Edin., has been reappointed Deputy Medical Officer of Health to the Penrith Rural Sanitary Authority.

TOLLER, C. W. E., M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed, *pro tem.*, Medical Officer for the Ilfracombe Sanitary District of the Barnstaple Union.

TOOGOOD, F. S., M.D. Lond., M.R.C.S., has been appointed Medical Officer to the Lewisham Infirmary.

WALKER, W. W., B.A., M.B., B.C. Cantab., has been appointed Junior House Surgeon to the Great Northern Central Hospital.

WESTON, G. H., M.B., D.P.H. Camb., M.R.C.S., has been appointed Medical Officer of Health for the Shirley and Freemantle Urban Sanitary District of the South Stoneham Union, vice Alden, resigned.

WHITAKER, GEO. H., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Horwich Urban Sanitary District.

WILDING, W. F. W., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for Hindley.

WOOD, W. DYSON, L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health to the Thame Urban Sanitary District.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

CHELTENHAM GENERAL HOSPITAL.—Junior House Surgeon, unmarried. Salary £40 per annum, with board and apartments.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Board and residence and allowance for washing provided.

COUNTY ASYLUM, Whittingham, Preston.—Junior Assistant Medical Officer. Salary commencing at £100 a year, with apartments, board, and washing.

COVENTRY AND WARWICKSHIRE HOSPITAL, Coventry.—House Surgeon for two years. Salary £100 per annum. Also Assistant House Surgeon for six months. Honorarium £15. Both officers will be provided with board (exclusive of beer, wine, and spirits), rooms in hospital, and attendance.

DISTRICT INFIRMARY, Ashton-under-Lyne.—House Surgeon. Salary £90 a year, with board and lodging.

EAST RIDING LUNATIC ASYLUM, Beverley.—Assistant Medical Officer, unmarried. Salary £100 per annum, with board, lodging, and washing.

ESSEX COUNTY LUNATIC ASYLUM, Brentwood.—Third Assistant Officer and Pathologist. Salary £120 per annum, with board, lodging, and washing.

LONDON COUNTY COUNCIL, Spring-gardens, S.W.—Resident Medical Officers in the districts into which London is divided to give medical assistance as may be required to the officers and men of the Metropolitan Fire Brigade and other persons in the service of the Council.—Applications to the Clerk of the Council, Spring-gardens, S.W.

NEWPORT AND MONMOUTHSHIRE INFIRMARY, Newport, Mon.—House Surgeon. Salary £100 per annum, with board and residence (no stimulants provided).

PARISH OF ST. GEORGE-IN-THE-EAST.—Assistant Medical Officer for the Infirmary and Workhouse. Salary £120 a year, with rations and apartments. Applications to the Clerk, Guardians' Offices, Raine-street, Old Gravel-lane, E.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. Board, lodging, and washing provided.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Curator of Museum for one year. Non-resident. Salary £120 per annum.

ST. GEORGE'S UNION, London.—Medical Officer for the No. 3 Relief District. Salary £150 per annum, with such extra medical fees as are allowed under the orders of the Local Government Board. Applications to the Clerk, Clerk's Offices, St. George's Vestry Hall, Mount-street, W.

ST. LUKE'S HOSPITAL, London, E.C.—Clinical Assistant for six months. Board and residence provided.

ST. PANCRAS AND NORTHERN DISPENSARY, 126, Euston-road.—Surgeon. Applications to the Hon. Sec., 23, Gordon-street, Gordon-square, W.C.

SUNDERLAND BOROUGH LUNATIC ASYLUM.—Medical Superintendent. Salary £350 a year, with furnished house, board for self and wife (if married), washing, coals, light, two servants, and use of garden. Applications to the Clerk to the Visiting Committee, Town Hall, Sunderland.

UNIVERSITY OF EDINBURGH.—Chemical Assistant to the Professor of Physiology. Salary £180 per annum. Applications to the Secretary of the Edinburgh University Court before July 1st.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant for six months. Board, lodging, and washing provided.

Births, Marriages, and Deaths.

BIRTHS.

BARROW.—On May 31st, at Uffculme, Devon, the wife of Valentine Evelyn Barrow, L.R.C.P., &c., of a son.

BELL.—On June 3rd, at Upgate, Louth, the wife of Charles W. J. Bell, M.R.C.S. Eng., of a daughter.

GROOME.—On June 1st, at New-cross-road, S.E., the wife of Walter Groome, M.B., M.S., of a daughter.

KEY.—On June 2nd, at Wilton-place, Belgrave-square, S.W., the wife of A. Cooper Key, M.D., M.R.C.P., L.S.A., of a daughter.

LAZARUS-BARLOW.—On June 1st, the wife of Walter S. Lazarus-Barlow, M.D., M.R.C.P., of Old Chesterton, Cambridge, of a daughter.

LIMONT.—On May 31st, at 3, Queen's-square, Newcastle-on-Tyne, the wife of James Limont, M.B., of a son.

MAKEHAM.—On May 31st, at New-cross-road, S.E., the wife of H. W. Payne Makeham, M.R.C.S. Eng., L.R.C.P., L.S.A. Lond., of a son.

MUSSON.—On May 31st, at King-street, Clitheroe, the wife of Alfred W. Musson, M.B., B.C. Cantab., of a son.

POPE.—On May 11th, at Matatiele, Griqualand East, Cape Colony, South Africa, the wife of C. Ernest Pope, M.R.C.S., of a daughter.

RICKETTS.—On May 30th, at Greenhithe, Kent, the wife of Dr. T. F. Ricketts, of a son.

SANSOM.—On June 2nd, at Wilton-street, Grosvenor-place, the wife of Dr. C. L. Sansom, F.R.C.S., of a son.

WALLIS.—On June 5th, at East Grinstead, the wife of P. E. Wallis, L.R.C.P., M.R.C.S., of a son.

WREFORD.—On June 2nd, at Clapham-road, S.W., the wife of S. Wreford, M.R.C.S., of a daughter.

MARRIAGES.

BEEGLING—TAYLOR.—At Morningside Parish Church, on May 23rd, by the Rev. P. M'Adam Muir, D.D., assisted by the Rev. Robert Stevenson, Abernethy (uncle of the bride), Daniel Henry Beegling, B.A., M.B., C.M., son of William Frederick Beegling, of Goulburn, New South Wales, to Jane Stevenson, eldest daughter of Thomas G. Taylor, Orwell Lodge, Merchiston. At home, Orwell Lodge, June 13th and 14th. (No cards.)

CÆSAR—WRIGHT.—On May 30th, at St. John's, Blackheath, by the Rev. R. H. Dickson, M.A., Rector of Eastchurch, Sheerness, assisted by the Rev. Anderson, M.A., Julius Cæsar, F.R.C.S.I., youngest son of the late Henry Augustus Cæsar, M.D., F.R.C.S.I., to Gertrude Marie, fourth daughter of the late Colonel W. A. G. Wright.

DAVEY—COLEMAN.—At the Parish Church, St. Minver, on May 31st, 1894, by the Rev. C. H. Chase, Vicar, Samuel Davey, M.R.C.P., L.R.C.P. Lond., of Brixton, S.W., to Mary Barbara, eldest daughter of Frank Coleman, Rock Hill.

LUMLEY—BALL.—On June 2nd, at St. Augustine's, Honor Oak, Frederick Davidson Lumley, Surgeon R.N., younger son of Thomas Lumley, Fleet Engineer, R.N. (retired), to Pattie Codrington, younger daughter of the late Staff Commander Edward Codrington Ball, R.N., K.L.H.

RAMSBOTTOM—KILBURN.—On May 31st, at the Parish Church, Meltham, Huddersfield, by the Rev. Walter Verity, C. H. Geoffrey Ramsbottom, M.B., B.Ch., of Queensbury, near Bradford, to Jessie, youngest daughter of James Kilburn, J.P., C.A., Croft House, Meltham. At home, Granby Fields, Queensbury, June 12th, 13th, and 14th.

REDFERN—HENRY.—On June 4th, at St. Stephen's, South Kensington, by the Rev. R. W. Hoare, Vicar of S.S. Michael's and All Angels', Croydon, assisted by the Rev. G. S. Flack, Vicar of St. Stephen's, John Joseph Redfern, M.A., M.D., of Croydon, eldest son of Professor Redfern, M.D. Lond., F.R.C.S., of Belfast, to Eva Maud, daughter of the late Rev. P. Shuldam Henry, D.D., President of Queen's College, Belfast, and of Mrs. Henry, Drayton Mansions, South Kensington.

REYNOLDS—HALL.—On June 6th, at St. James's Church, Brighton, by the Rev. J. J. Mallaby, M.A., Vicar, assisted by the Rev. R. D. Wakefield, M.A., Graham Hay Reynolds, M.B., C.M., of Frognal, Hampstead, second son of W. Pierce Reynolds, Esq., to Herculena Maud Millicent (Mag), younger daughter of Major Macdonald Hall, of Brighton, late 1st Royal Dragoons and 62nd Regiments.

SIMPSON—STOTT.—On June 5th, at St. Pancras Church, John Simpson, B.A., M.D., Highgate-road, London, N.W., to Mary Helen (May), daughter of Thomas S. Stott, M.R.C.S. Eng., Highgate-road, N.W.

WARD—CHADWICK.—On June 2nd, at St. George's, Hanover-square, by the Rev. Frank Harrison Stock, M.A., Vicar of Rotherham, Yorks, Howard Percy Ward, M.B. Lond., M.R.C.S., youngest son of Henry Carpenter Ward, of Stanwell, Middlesex, to Amy, daughter of the late John Chadwick, J.P., of Bulle Hill, Manchester.

DEATHS.

GRAHAM.—On June 1st, at Barnes, suddenly, Brigade-Surgeon Henry William Graham, India Medical Service (retired), aged 67 years.

HOWARTH.—On May 30th, at his residence, Derby House, Derby-street, Bolton, Geo. Howarth (aged 54 years), L.R.C.P. Edin., M.R.C.S. Eng., L.S.A. Lond.

MALCOLM.—On June 5th, at Rosebery-crescent, Edinburgh, Robert Bowes Malcolm, M.D., F.R.C.P.E., and F.R.S.E., in his 87th year.

WILL.—On June 1st, suddenly, at Rubislaw-terrace, Aberdeen, James Will, M.D., J.P., of Woodside.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments)

THE LANCET Office, June 7th, 1894.

	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
June 1	29·90	S.W.	57	52	112	62	47	0·11	Cloudy
,, 2	29·68	S.W.	58	57	99	65	53	0·17	Cloudy
,, 3	30·02	S.W.	58	56	90	65	51	..	Cloudy
,, 4	29·82	S.E.	58	58	92	68	55	0·37	Raining
,, 5	29·81	S.W.	59	54	101	64	53	0·19	Cloudy
,, 6	29·80	N.E.	53	51	68	58	51	..	Overcast
,, 7	29·74	N.E.	51	49	81	56	49	0·49	Cloudy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.). St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), Great Northern Central (2.30 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Great Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Chelsea (2 P.M.), Soho-sq. (2 P.M.), North West London (2 P.M.)

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.) Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY.—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—Dr. A. E. Sansom: A Review of Cases manifesting Pain at the Heart or Morbid Acceleration of the Heart's Contractions (Tachycardia) subsequently to Influenza.—Mr. Malcolm Morris: A case of Acanthosis Nigricans.

WEDNESDAY.—ROYAL SOCIETY.—Annual Conversazione

THURSDAY.—BRITISH GYNÆCOLOGICAL SOCIETY.—Specimens will be shown by Mr. O'Callaghan, Dr. Eden, and Dr. C. Martin Mr J. W. Taylor: Intra-peritoneal Hæmatocele and its Relation to Unruptured Tubal Pregnancy ("Tubal Abortion").

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—Living and Card Specimens at 8 P.M.:—Dr. S. Stephenson: A case of Coloboma of the Lens (Double)—Mr. H. Work Dodd: A case of Binocular Polycoria. Papers at 8.30 P.M.:—Dr. James Taylor: Optic Neuritis in its Relation to Cerebral Tumour and Trephining.—Mr. R. C. Ridley: Some Points in the Histology of Trachoma.—Mr. Simeon Snell: (1) Cases of Congenital Serous Cyst of Eyelids associated with Anophthalmos or Microphthalmos; (2) Osteoma of Orbit.—Mr. Spencer Watson: A New Operation for Trichiasis and Distichiasis—Dr. A. Freeland Fergus: Notes on Peculiar Ophthalmic Conditions occurring in Members of the Same Family.

LECTURES AND ADDRESSES.

MONDAY.—ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. William Thorburn: The Surgery of the Spinal Cord and its Appendages

LONDON POST-GRADUATE COURSE.—London Throat Hospital, Great Portland-street, W., 8 P.M., Dr. Whistler: Catarrhal Affections of the Upper Air Passages.

ST. JOHN'S HOSPITAL FOR SKIN DISEASES (Leicester-sq., W.C.).—6 P.M. Dr. Morgan Dockrell: Syphilides.

TUESDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M.. Dr. Hyslop: General Paralysis.

WEDNESDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars, 1 P.M., Dr. Payne: Lupus Erythematosus.

METROPOLITAN HOSPITAL (Kingsland-rd., N.E.).—5 P.M. Dr. Tooth: The Anatomy and Pathology of the Spinal Cord. (Post-graduate Lecture.)

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. William Thorburn: The Surgery of the Spinal Cord and its Appendages.

WEST LONDON HOSPITAL (Hammersmith-rd., W.).—5 P.M. Dr. Ball: Throat and Nose Cases. (Post-graduate Lecture.)

THURSDAY.—LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Gt. Ormond-st., 3.30 P.M., Dr. Lees: Cases in the Wards—National Hospital for Paralysed, Bloomsbury, 2 P.M., Dr. Gowers: Clinical Cases.—Central London Sick Asylum, Cleveland-street, W., 5.30 P.M., Dr. Cheadle: Cases in the Wards.

FRIDAY.—LONDON HOSPITAL MEDICAL COLLEGE.—4 P.M. Mr. Jonathan Hutchinson: On Melanotic Sarcoma.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. William Thorburn: The Surgery of the Spinal Cord and its Appendages.

SATURDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 11 A.M., Dr. Corner: General Paralysis.

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

PUBLISHER'S NOTICE.

IN order to facilitate the work of reference to the volumes of THE LANCET, we have arranged to publish duplicate copies of the Index to each half-yearly volume in a form in which they may be subsequently filed or bound together. Those of our subscribers who may wish to be supplied with loose copies can obtain the same (without extra charge) on making application to the Publisher of THE LANCET.

COMMISSION FOR THE SALE OF MEDICAL PRACTICES.

THE *Liverpool Courier* has the following report, which is important to those selling practices through medical agencies:—

"*Sale of a Medical Practice.*—The case of the Scholastic and Medical Association *v.* Hobson came before his Honour Judge Lumley Smith, Q.C., on Wednesday, in the Westminster County Court. The claim was for £32, for commission for the sale of the practice of Dr. Hobson of Harrogate. Plaintiffs received instructions for the sale of the practice; they made efforts to find a purchaser, and Dr. Pesquit agreed to acquire it, but defendant then declined to sell, saying he was negotiating for a partnership with Dr. Dale of Scarborough. Plaintiffs contended that as they had obtained a willing purchaser for the amount agreed upon—£800—they had earned their commission. Mr. Statham, for the defence, said the commission would have been earned if the Scarborough partnership transaction had been completed. The contract with the plaintiffs was made on those terms. He contended that the fee of two guineas provided in the terms of the Association was the utmost they could recover. His Honour said it was no doubt hard on Dr. Hobson, but he must find for the plaintiffs for the full amount claimed with costs."

A Contributor to THE LANCET *for Twenty-five Years.*—It is quite open to our correspondent to claim his fee if he can show that he was *bonâ fide* engaged and that he has suffered any material inconvenience from keeping his engagement. We shall be glad to hear the result.

Dubitans.—We know of nothing to prevent our correspondent using such titles, or which would justify his medical brethren in objecting to them.

Surprised M.D. has omitted to enclose his card.

MEDICAL ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—A. is a medical man to a public institution and makes a diagnosis of a certain complaint affecting several patients. A Local Government Board inspector, with a view to settling a doubt, brings down B., another medical man, who proceeds to examine the patients of A. in his absence, without his knowledge absolutely, and without communicating with him in any way, and arrives at a different diagnosis. May I ask, Is B. fully justified in acting thus, irrespectively of his public position? And does this amount o a gross breach of etiquette, to say nothing of discourtesy? I should be glad of an expression of opinion.

I am, Sirs, yours faithfully,

May 29th, 894. DOUBTFUL.

"SUFFOCATED IN A SEWER."

Drs. David Arthur and *Charles R. Illingworth* write in reference to an annotation on the above subject which appeared in THE LANCET of May 12th, 1894, that they are endeavouring to introduce a new system of sewerage, in which the essential feature is an interceptor trap, which is claimed to entirely prevent the sewer-air from entering the drains, and thus to remove all possibility of infection through the sewers from one house to another. The annotation referred to, however, related to a case, as reported recently in the papers, in which a number of men engaged in clearing the main sewers were suddenly overcome with noxious gases, and not to the emanation of sewer gases in dwellings. The invention, however, is obviously one which has a most important aim in view, and therefore worthy of serious consideration if there are no practical difficulties presented in adapting it to the present system.

Justitia.—The question is legal rather than medical in its character. But, speaking from the medical side of it, and assuming the accuracy of our correspondent's account of the matter, we certainly agree with him that he should have redress for such obvious misrepresentations. The proper course would be to request his solicitor to write to the practitioner, explaining the grievance and the harm done, and demanding an ample and complete apology. We cannot doubt that this will be forthcoming. Failing such a result, our correspondent will be fully justified, under the advice of his lawyer, in taking the matter into court.

Anxious.—Nobody "cures that sort of thing by massage." In many cases much may be done.

Mr. Henry Harris is thanked for his communication, of which we hope to be able to make use.

THE ADMINISTRATION OF CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—Prompted by a suggestion made in a recent issue of THE LANCET that cases in which dangerous symptoms had arisen during the inhalation of chloroform without fatal result should be published, I venture to record the following case. The patient, a healthy woman aged thirty, with no organic disease, was undergoing the operation of digital dilatation of the os for the removal of a six months fœtus. She took the chloroform, administered by a Sliemann's inhaler, quietly and well, and had been fully, but not deeply, under it for about ten minutes. Whilst keeping a finger on the temporal artery, but at the same time paying more attention to the breathing than the pulse, I found the latter to suddenly fail; at the wrist it could only just be felt. I immediately removed the inhaler and lowered the head, and was relieved to find the pulse gradually resume its former volume. Apart from the failure of the pulse there was no sign to indicate danger. The breathing was natural—quiet, regular and free; the pupils were not dilated, and there was no change in the colour of the face. The operation was completed without any more chloroform being given. I had given the patient chloroform about a year previously to this and on that occasion had no cause for anxiety. Probably in this case, had I confined my attention to the breathing only, it would have resulted in another victim being added to the death-roll of chloroform poisoning.

I am, Sirs, yours faithfully,

Sheffield, June 1st, 1893. ALEX. MILNE, M.B.

A PROTEST.

To the Editors of THE LANCET.

SIRS,—I would wish to enter a vigorous protest against the practice obtaining in connexion with the making known to candidates for the Second Examination for the F.R.C.S. Eng. the result of such examination. All successful ones and all unsuccessful ones will, one would think, readily guess at the practice referred to, and one wonders that such has never been altered, and, indeed, that it was ever instituted. To my mind—and, I do not scruple to say, to the mind of any even ordinarily refined man—it is extremely *infra dig.*, and, indeed, absolutely vulgar, to subject a candidate, be he a successful one or not, to the impertinence of having the result announced by an official of the *genus* porter. Fancy a gentleman—and those aspiring to be Fellows ought to come under this title—being compelled to suffer the indignity of being congratulated or condoled with by a porter! Yet this is what the system adopted veritably amounts to. Surely, some less vulgar mode might be adopted. It does not require much ingenuity to suggest alternative ones.

I am, Sirs, yours faithfully,

June 4th, 1894. SEEMLINESS.

THE GRIFFITHS FUND.

To the Editors of THE LANCET.

SIRS,—Will you kindly acknowledge the following additional subscriptions to the above fund?

Already acknowledged .	£158	5	6	J. G. Glover	£2	2	0
John Williams	5	0	0	Edmund Carver	0	10	6

We are, Sirs, yours faithfully,

W. F. BROOK,
E. LE CRONIER LANCASTER, } Hon. Secs.

Winchester House, Swansea, South Wales, June 5th, 1894.

THE CARMARTHEN LUNATIC ASYLUM AND THE WELSH LANGUAGE AS A QUALIFICATION FOR ITS SUPERINTENDENT.

THE Lampeter Board of Guardians seem very indignant with the visiting committee of the Carmarthen Lunatic Asylum for appointing Dr. Goodall as medical superintendent of that institution, seeing that that gentleman does not know the Welsh language and that three-fourths of the inmates speak Welsh. They have carried a resolution calling on the committee either to cancel the appointment or resign their seats. This is a rather high-handed and narrow procedure. The kindest thing the committee can do for the poor lunatics is to appoint the candidate who knows most of lunacy and the way of treating it. The knowledge of the Welsh language will, *per se*, be a very poor help to the treatment of lunacy and is not to be allowed to determine the success of a candidate with inferior professional qualifications, especially if the inmates also know English. Professional qualifications being equal, we do not deny that something might be allowed in favour of a Welshman.

INFLUENZA IN OLDEN DAYS.

To the Editors of THE LANCET.

SIRS,—In the "Siege of Gibraltar" by Drinkwater (Murray's Edition, 1861, p. 121) the following passage occurs, which may be of interest to those studying different epidemics of influenza in the past:—

"About this time [August, 1782] a species of influenza made its appearance on board the frigates in the Mole and soon communicated with the garrison. Its general symptoms were sudden pains, accompanied with a dizziness in the head; though others were affected in a different manner. For several days near 100 men were daily taken to the hospital, but bleeding and a night's rest usually removed it. It was attributed at that time to the extraordinary heat of the atmosphere, which was unusually warm, owing to the extensive fires made by the Spaniards on the neighbouring hills and the stagnant state of the air; but we have since learned that it was universal over Europe, and we had reason at that time to think the enemy were not less affected by it than the garrison."

I am, Sirs, yours faithfully,

Manchester, June 4th, 1894. ALEX. G. FRASER, M.D.

THE PUFFS OF AMERICAN SPECIFICS.

A CORRESPONDENT sends us a very remarkable pamphlet with a series of puffs of an American remedy for all kinds of complaints of the bladder and generative organs, purporting to be written by members of the profession, mostly in the United States. We are asked to state our opinion of the system of puffing American specifics. We think it in the worst possible taste. We must be allowed to doubt whether educated medical men could be got to write such testimonials. What surprises us is that respectable druggists can think to advance their business by sending such rubbish to members of the profession here.

UNORTHODOX THERAPY.

Cosmopolitan.—It is quite right of our correspondent to keep an open mind for the consideration of every system and method of treating disease, so long as he does not erect any into an exclusive place, but holds it in subordination to the fundamental principles of science and of common sense.

ANSELL *v* TAIT.

To the Editors of THE LANCET.

SIRS,—Since the publication in THE LANCET of the last list of subscriptions the following amounts have been received:—

Mr John Cooper	£5	5	0	Dr. C. J. Cullingworth ..	£1	1	0
Mr. C. O'B. Harding ..	3	3	0	Dr. E. H. Hare	0	10	6
Mr. A. E. Cumberbatch..	2	2	0	Dr. W. L. Penny	0	10	6
Dr. Stephen Mackenzie ..	2	2	0	Dr. J. Burnett Smith ..	0	10	6
Mr. E. Nettleship	2	2	0				

The committee will be glad if gentlemen intending to subscribe will forward their subscriptions without delay, as they are anxious to close the fund.

I am, Sirs, yours faithfully,

G. T. KEELE, Treasurer.

81, St. Paul's-road, Highbury, N., June 5th, 1894.

During the week marked copies of the following newspapers have been received:—*Worcestershire Chronicle, Folkestone Express, Bury Advertiser, Sussex Daily News, Madras Times, Hexham Courant, Wallall Observer, Isle of Wight Observer, Norfolk Daily Standard, Wolverhampton Chronicle, Durham Chronicle, Salisbury Journal, Keene's Bath Journal, Cumberland Advertiser, Oxford Journal, Alnwick Gazette, Workington News, Ilkeston Pioneer, Lancaster Standard, Leicester Daily Post, Oundle Guardian, South Wales Daily News, Southampton Echo, City Press, Rossendale Free Press, Times of India, Architect, Northampton Mercury, Nottingham Guardian, Western Morning News, Pioneer Mail, Builder, Abingdon Herald, Dewsbury Reporter, Newbury Weekly News, Yorkshire Evening Post, Manchester Evening News Sanitary Record, The Gymnast and Athletic Review, Reading Mercury, West Middlesex Standard, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Liverpool Daily Post, Citizen, Bristol Mercury, Yorkshire Post, Leeds Mercury, Hertfordshire Mercury, Courrier de la Presse (Paris), Southampton Times, Surrey Advertiser, Pullen's Kent Argus, Public Health, Local Government Journal, Surrey Mirror, Hastings and St. Leonard's Observer, Lewisham and Lee Herald, Bolton Chronicle*, &c., &c.

Communications, Letters &c. have been received from—

A.—Dr. J. Althaus, London; Dr. B. Anningson, Cambridge; Mr. S. Aldred, Great Yarmouth; Mr. W. Adams, Plymouth; Ashton-under-Lyne District Infirmary, Hon. Secretary of; Agricola, London.

B.—Dr. T. Lauder Brunton, London; Dr. Fletcher Beach, Kingston Hill; Dr. Henry Barnes, Carlisle; Dr. A. H. Boucher, Hertford; Dr. E. Carmichael, Edinburgh; Mr. W. H. Bennett, London; Mr. W. Berry, Wigan; Mr. C. Birchall, Liverpool; Messrs. Burroughs, Wellcome and Co., London; Messrs. J. W. Blinkhorn and Co., London; Beta, London.

C.—Dr. James Cagney, London; Dr. W. H. Corfield, London; Dr. Cullingworth, London; Dr. J. S. Cameron, Leeds; Dr. H. J. Cooper, London; Mr. R. Brudenell Carter, London; Mr. Crompton, Nelson; Messrs. Cornish Bros., Birmingham; Coomb's Aerated Flour Restaurants Co., Limited, Directors of; Caius Mission Church, Battersea, Warden of.

D.—Dr. E. Diver, Kenley; Dr. T. M. Dolan, Halifax; Surg.-Lt.-Col. Duke, Sudarpore, India; Mr. A. Driver, Chelmsford; Mr. J. Day, London; Mr. M. De Quadros, London; Messrs. S. Deacon and Co., London; Herren Dallmann and Co., Gummersbach.

E.—Dr. James Edmunds, London; Dr. Frank A. Elkins, Edinburgh; Mr. T. S. Ellis, Gloucester; Mr. H. Martyn Eames, Shipley; Essex County Cottage Nursing Association, Hon. Secretaries of.

F.—Dr. A. G. Fraser, Manchester; Fife, The Duke of, London; Mr. Charles Frank, London.

G.—Dr. G. F. Grant, Bengal; Mr. Gustavus G. Gidley, Cullompton; Rev. S. A. Griffiths, London; Great Northern Central Hospital, Secretary of; Great Eastern Railway Co., London, Continental Traffic Manager of; General Medical Council Office, London.

H.—Dr. Alex. Hill, Cambridge; Dr. T. E. Hughes, London; Dr. J. A. Harrison, Haslingden; Dr. T. B. Hewlett, London; Surg.-Capt. Herbert, Rajkote, India; Mr. A. Haviland, Buxton; Mr. J. Heywood, Manchester; Mr. J. J. Harding, Ballincollig; Mr. G. T. Himes, London; Mr. Mazhar Husain, Deccan, India; Mr. A. P. Hope, Leicester; Mr. C. W. Hobson, Beverley; Mr. John Hislop, Ripley.

I.—Dr. J. Ince, Swanley; I. B. C., London.

J.—Dr. F. F. Jay, Tenterden; Mr. W. G. Johnson, Bedford; Messrs. J. F. Jones et Cie., Paris.

K.—Dr. Kirk, Philadelphia; Dr. A. Brown Kelly, Glasgow; Messrs. Krohne and Sesemann, London; Messrs. Keith & Co., Edinburgh.

L.—Dr. Robert Lee, London; Dr. Lynch, Walsall; Mr. Thomas Laffan, Cashel; Leeds Returned Letter Office, Postmaster of.

M.—Dr. F. W. Mott, London; Dr. H. Macnaughton-Jones, London; Dr. Rutherford Morison, Newcastle-on-Tyne; Dr. Hector W. Mackenzie, London; Mr. George Missum, Pretoria; Mr. Allan M. Minns, Thetford; Mr. John Milne, London; Mr. J. D. McClure, London; Mr. A. Waldegrave Mitchell, London; Messrs. J. Maythorn and Son, Biggleswade; Messrs. Macmillan and Co., London; Mill Hill School, Head Master of; Magpie; Medicus, Bristol.

N.—Dr. Richard Neale, London; Dr. J. H. Nicoll, Glasgow; Mr. R. G. Naylor, West Mersea; Messrs. F. Newbery and Sons, London; Newport and County Hospital, Secretary of.

O.—Messrs. Oppenheimer, Son and Co., London.

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